The Journal of the American Medical Association

Published under the Auspices of the Board of Trustees

VOL. XL. CHICAGO, ILLINOIS, MAY 9, 1903. No 19.

Address.

MEDICAL EDUCATION IN THE UNITED STATES.

PRESIDENT'S ADDRESS, DELIVERED AT THE FIFTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION, AT NEW ORLEANS, MAY 5-8, 1903.

FRANK BILLINGS, M.S., M.D.

CHICAGO.

One of the chief objects of the organization of the American Medical Association was the elevation of the standard of medical education in the United States. In the president's address, the Father of the Association, Dr. N. S. Davis, stated that "the purpose of the organization was the improvement of our system of medical education and the direct advancement of medical science and practice."[1] That medical education in that day was defective, as recognized by the founders of the Association, is shown by the report of the Committee on Medical Education in the year 1850. The committee said, in part, as follows: "Medical education is defective because there are too many medical schools; the teachers are too few. There are too many students. The quantity of medicine taught is too limited; the quality too superficial, and the mode of bestowal of the honors of medicine too profuse and too unrestricted."

For many years the Association showed its interest in and attempted to influence the elevation of the standard of medical education through a committee on medical education. The Transactions of the Association of the earlier years show many reports of this committee, which display much thought and effort on the part of the Association to improve the status of medical education at that period of time. James R. Wood, as chairman of the committee, in the year 1858, recommended that the various medical colleges of America be requested to send delegates to a convention of medical colleges, to consider the matter of medical education. This movement finally resulted in the formation of the Association of American Medical Colleges, which thereafter represented, to a degree at least, the American Medical Association in its efforts to improve medical education. Later, the Southern Medical College Association was formed. Together these associations represent about 80 per cent. of the regular medical schools of the country, and these colleges have, in a general way at least, fulfilled the minimum requirements prescribed by the rules of the associations in regard to the preliminary education of students, the length of the college course, and the character of the curriculum.

About twenty-five years ago the Illinois State Board of Health, through the splendid efforts of Dr. J. H. Rauch, its secretary, made a report on the number and character of the medical schools of the country. This board adopted a minimum of requirements of medical schools as a necessary step toward the recognition of their diplomas by the State Board of Health of Illinois. This minimum requirement of the State Board of Health was gradually increased from time to time, with the result that many of the medical schools were obliged to raise the standard of medical education to enable their graduates to obtain licenses to practice in Illinois. Other states followed Illinois in requirements for better methods of medical education, with the result that the standard of education in the country was very much improved.

MEDICAL SCHOOLS OF THE COUNTRY.

In the earlier days of our country, the need of physicians was met by the organization of medical schools which were, as a rule, proprietary in character. These schools attempted the education of physicians on the then existing conditions of medicine by teaching in a didactic way the principles and theories of medicine and surgery. The branches usually taught at that time consisted of anatomy, physiology, chemistry, materia medica, obstetrics, the practice of medicine and of surgery. But little opportunity was offered in the great majority of the schools for extensive, practical teaching in anatomy or chemistry, and but a moderate amount of clinical work in the so-called practical chairs. The course of medicine in the college consisted of two annual sessions of four or five months. The course was not graded. The student attended all the lectures and clinics taught during his first year, and the second year was a repetition of the first. This class of schools was rapidly increased in the course of time. The chief reasons therefor were the fact that it was recognized that a connection with a medical school was profitable, directly and indirectly. The prestige which the teacher enjoyed among the graduates and the laity brought him a remunerative consultation and private practice. In most of the states it was easy to incorporate and obtain a charter for a medical college. It cost comparatively little to conduct and maintain the institution. Lecture rooms were obtained at trifling cost. The dissecting room was not worthy of the name of a laboratory, and the chief expense in maintaining it was the cost of dissecting material, which was usually deficient in quantity and poor in quality. Medical schools were organized all over the country, without reference to the needs of the people. Medical education was prostituted. To obtain a sufficient number of students many institutions showed a most degraded disregard of the moral and mental qualifications of the matriculates. The income of the school was wholly derived from the tuition of students, and no applicant was

1. Transactions A. M. A., vol. xvi, 1865.

turned away who had the cash with which to pay his way. To add to the facility of obtaining a medical college course, there were organized in some cities evening schools, the hours of college attendance occurring from 7 to 9 or 10 o'clock at night. These sundown institutions enabled the clerk, the street-car conductor, the janitor, and others employed during the day to obtain a medical degree.

In spite of the general tendency to increase the facility by which a medical degree could be obtained, there was a force at work to improve the methods of medical education. A few older medical colleges and an occasional new one set the standard high in relation to the existing status of medicine. There were earnest, forceful medical men in some of the schools who fought for a higher standard for matriculation and graduation.

The medical college associations exerted a splendid moral influence for good, and the state boards in all the more advanced states have, by mandatory legislation, compelled the colleges to raise the requirements in reference to the preliminary education, the length of the annual session, the time of medical college study, the character of the curriculum, etc. As a result, the status of medical college education has been very much improved in the last twenty, and chiefly in the last ten years. But, improved as it is, there are evils which menace us, the chief of which still are too many medical schools, too many students, and inadequate facilities for the proper teaching of medicine.

The improvement in medical college requirements has increased the cost of the maintenance of the medical college to a degree that it is no longer a profitable financial venture. There can be no dividends. Indeed, the proprietors of the private institution must often make up a deficiency in the annual budget. In spite of this fact, medical colleges have continued to increase steadily.

In 1877 there were sixty-five medical schools in the United States. In 1882 this number had increased to 89, and 1901-2 to 156. The enrolment of students and the number of graduates have also increased, in spite of the fact that the requirements for matriculation and graduation have been increased. In 1882 there were[2] 14,934 matriculates, and this number was increased in 1901 to 26,417, and in 1902 to 27,501, an increase of about 100 per cent. in twenty years.

The number of graduates in 1882 was 4,115; in 1901, 5,444; in 1902, 5,002, an increase of about 25 per cent. in twenty years. If, in 1850, there were too many medical schools and too many students, what can we say of the condition to-day?

It has been estimated that there is an average of one physician to 600 of the population of the United States at the present time. The natural increase in the population of the country, and the deaths in the ranks of the profession, make room each year for about 3,000 physicians, based on the proportion of one physician to 600 of the population. With 5,000 or more graduates each year, a surplus of 2,000 physicians is thrown on the profession, overcrowding it, and steadily reducing the opportunities of those already in the profession to acquire a livelihood. The evil of an overcrowded profession is a sufficient cause of complaint, but the cause thereof is the important point for us to consider and, if possible, remove. To correct the evil, the ease and facility with which a medical degree may be secured in this country must be diminished. As before stated, there are now 156 medical schools in this country. Of these, 30 are sectarian, and 136 are so-called regular schools. Fifty-eight are medical departments of universities, of which 24 are state institutions. The relation of the medical school to the university in most instances is a nominal one only. In but few of them is the control of the faculty, or the finances of the medical department, vested in the university proper. In a very few of them the sciences fundamental to medicine are taught in the university. In the majority of these schools these departments are duplicated in the medical department, and are taught by members of the medical faculty. In most instances, too, the teachers of the fundamental branches are physicians who devote but a part of their time to teaching. They teach without salary, or for a nominal one only. Their remuneration is obtained by private practice, to which they must devote their best energies, to the detriment of their value as teachers. The clinical department of these schools is, in most instances, wholly inadequate. The majority of such schools depend on the general hospitals situated near them for the privilege of the use of clinical material. Necessarily, these clinical advantages have great limitations, inasmuch as they can not be fully controlled for the purpose of proper bedside teaching, or for scientific investigation. Some of the medical schools which are connected with state universities are situated in small cities where it is impossible to command an adequate amount or variety of clinical material. The connection with a university, which many of the schools enjoy, is, therefore, almost valueless in a pedagogic sense. The majority do not differ materially from the private or proprietary schools in their value as teaching institutions. Ninety-eight of the medical schools in the country are private corporations, organized, maintained and, as a rule, owned by the faculty. If, in earlier years, these institutions were sources of direct financial profit to the owners, they have ceased to be so now—at least most of them. The evolution of medicine has made it necessary to extend the laboratory method of teaching. As these schools attempt to teach the whole curriculum, the erection, equipment and maintenance of the necessary laboratories have so increased the cost of conducting the schools that they are usually no longer self-supporting. The temptation is in such schools to conduct them on a plane which shall just comply with the minimum requirements of the various state bodies, which regulate medical practice in the several states. They are maintained ostensibly to teach medicine, but in reality for the prestige which a professorship affords the teacher in his private and consultation practice. Proprietary schools depend on general hospitals and dispensaries for clinical material. What was said of the status of clinical teaching of the medical departments of the universities is true also of the proprietary college. These schools can not hope to improve their present standards. The majority attempt to maintain laboratories and other expensive means of teaching which a modern medical education demands. But in how many are the laboratories worthy of the name? What kind and variety of instruments and apparatus do they afford? Are their teachers of the sciences of the fundamentals of medicine capable? They can not hope for better conditions, because the time when a student's tuition will pay the school for his instruction, if he is properly taught, will never return. Medical education of the future must be based on the status of medical science. That basis is recognized now, but is attempted in the great majority of our medical institutions in a very superficial way.

2. THE JOURNAL A. M. A., vol. xxxix, No. 10, p. 574.

SCIENTIFIC MEDICINE.

The great and important discoveries of Pasteur and the practical methods devised by Koch in bacteriology marked a new era in medicine. Before the facts made clear by these discoveries, the hypotheses and theories of other days have disappeared. Our knowledge of man and the lower animals and of the diseases and evils which afflict them has been revolutionized within the last twenty years. The advance in medical knowledge has been greater in that period than in all preceding time. Medicine now embraces many more subjects, chiefly fundamental ones, than were known twenty years ago. Formerly a very superficial knowledge of a few isolated facts in general chemistry and human physiology and a memorized knowledge of human anatomy and of materia medica enabled the student to learn the practice of the art of medicine and surgery. Now, the problems which confront the clinician and investigator in medicine and surgery compel him to have a good and working knowledge of general, physical and physiologic chemistry, of general biology, bacteriology, pathology, physiology, embryology, pharmacology, histology and anatomy. The physician who has not a practical knowledge of these fundamental subjects can not clearly understand the methods of others engaged in scientific investigation, nor can he rationally utilize the discoveries of others in his work. Medicine to-day is applied science. If we utilize the knowledge of to-day in an attempt to cure and prevent disease, it must also be an experimental science. No one can practically apply or rationally experiment with what he does not know. The fundamental studies of medicine must, therefore, be acquired by all who desire to successfully apply them as sciences. The successful experimental application of these sciences has given us within ten years a knowledge of the method by which the invading bacteria affect the host, and has likewise developed a principle of wide application as a preventive and cure of certain diseases by the use of antitoxic sera. It has confirmed the principle of preventive inoculation, accidentally discovered by Jenner, and has enabled us to apply the principle in other diseases than smallpox. It has enabled us to know the methods of transmission of certain infectious diseases, and to know how to stamp out scourges like yellow fever, the plague and malaria.

Through the evolution of Listerism, it has enabled the surgeon to invade every region of the animal body, and to save scores of lives formerly doomed to death. The freedom with which the surgeon may now operate has not only saved lives, but, indirectly, the knowledge of disease processes so studied during life has taught us many new facts in symptomatology, and has cleared away many fallacies concerning pathologic processes. It has given us many new methods of clinical study, and furnished data from the blood, the spinal fluid, the exudates, the sputa, the sweat, the feces, and urine, which enable us to recognize disease much more readily than before.

Much as has been accomplished by experimental medicine in a comparatively brief period of time, there are vast fields to which the method has not been applied. With most of us, our present methods of clinical observation enable us to do little more than name the disease. In the vast majority of the infectious diseases we are helpless to apply a specific cure. Drugs, with the exception of quinin in malaria, and mercury in syphilis, are valueless as cures. The prevention and cure of most of the infectious diseases is a problem which scientific medicine must solve. What is true of the infectious diseases is also true of the affliction of mankind due to chemical influences within the body. We know but little of diabetes, of the primary blood diseases, or of the various degenerative processes of age and disease. We hopefully look to chemistry to reveal to us the cause of these and other conditions. Experimental medicine must be the means of removing the ignorance which still embraces so many of the maladies which afflict mankind. Not every student, nor every physician, can become an experimenter in applied medicine. Nevertheless, every physician must be so educated that he may intelligently apply the knowledge furnished him by experimental medicine in the cure of such diseases as can be cured. He will no longer juggle with the life of his patient by an attempt to cure with drugs or otherwise, where no help is possible.

METHODS OF MEDICAL EDUCATION.

The phenomenal evolution of medicine has multiplied the subjects of medical study. The character of these sciences requires that they shall be taught by the laboratory method. The laboratory method, too, has been adopted as the chief method of instruction in anatomy, pharmacology and chemistry, formerly almost wholly taught in medical schools by didactic lectures. The laboratory method, while necessary to the proper and practical instruction of the student, involves an expense which is appalling when compared with the methods of teaching formerly practiced in all schools, and still adhered to in many medical schools. The method is expensive, inasmuch as it involves more extensive buildings, much expensive apparatus and an increase of the teaching force. The instruction must be individual or to small groups of laboratory workers, and this involves also an extension of the time of instruction. A physician engaged in private practice can not possess and retain the general and technical knowledge necessary to enable him to teach one of the fundamental sciences properly, nor can he devote an adequate amount of time to it. The teachers of these fundamentals must be investigators in the province of their respective sciences. They must give their whole time to the instruction of students and to original investigation. The thoroughness and accuracy of the training of the special senses, and in experimenting, which a student will receive from such teachers in properly equipped laboratories, will make him keen in intellect and sound in judgment. His desire for knowledge will be stimulated by the atmosphere of his surroundings, and will awaken in him a consciousness that through him and his work the knowledge of the world will be increased and humanity benefited thereby. But teachers of this character must be paid salaries quite as large as the remuneration of professors in the departments of arts, literature and science. The salaries of such professors and of the corps of assistants which the laboratory method implies make the cost of the university or college far beyond the income which could be derived from the tuition of students. I believe it has been estimated that the laboratory method of instruction, now followed by all first-class institutions of learning, costs annually from $100 to $500 per student. But, great as the cost seems, it must be conceded that the present status of medicine demands the thorough instruction of students in these fundamental studies. It matters not whether his future may be that of a teacher or a practitioner of medicine. In either event, he must apply his knowledge of the fundamental sciences to his work, and the result will depend on the thoroughness of his education.

APPLIED MEDICINE AND SURGERY.

To enable the student to utilize the knowledge of a thorough training in anatomy, physiology, chemistry, pharmacology, physiologic and physical chemistry, embryology, neurology and pathology, he should be afforded facilities of equal rank in clinical medicine and surgery. To supply the student with proper clinical facilities involves several important features. Special hospitals, which would be absolutely under the control of the medical school, would be necessary. The hospital should be constructed with a definite idea of teaching students and of making researches into the nature, causes and treatment of disease, as well as to care for a definite number of patients. Hospitals for general medicine, surgery and obstetrics would be essential. Such hospitals, with laboratories and equipped with instruments, apparatus and library, would cost for their building and maintenance a very large sum of money. With such hospitals it would be necessary to choose the professors of medicine, of surgery, and of obstetrics, with competent assistants, of the same type as the teacher of the fundamental sciences. They should give their whole time to the work of teaching and to original research in the hospital. They should be men who have proved their scientific fitness for the important positions by the contributions they have made to medical knowledge. They should rank with and receive the pay given to professors of important departments in arts, philosophy and science. When so paid, they would be free to expend all their energy to teaching, and to experimental medicine—a career which would enable one to be of the greatest possible service to mankind. No life's work could be fuller or of greater self-satisfaction, and surely none would be more honorable. From these teachers and investigators the student would obtain instruction of the same systematic methods of accurate observation and investigation which were employed in the fundamental branches. He would receive thorough, conscientious drill in the fundamental methods of examination of patients, and his knowledge of the fundamental sciences would be constantly applied in this work. The trained clinical teachers would direct the student in thorough, careful observation in the wards and at the operating table, would collect data to be submitted to experimental tests, and would conscientiously carry out the experiments in the laboratories of the hospital.

The brilliant discoveries which have made our knowledge of the cause and means of transmission of many of the infectious diseases have been chiefly due to the introduction of the experimental method of investigation. Teachers and investigators of the type mentioned will have the opportunity to make equally important discoveries in the broad field of the unknown in medicine. They will train students in the methods of research work and constantly increase the number of investigators in the domain of medicine. And there is need for such men. We may give the great practitioners who have taught clinical medicine their due meed of credit for their excellent, painstaking, unselfish efforts as teachers. They have added to the sum total of our clinical data, have utilized the knowledge of the pathologist and the physiologist in diagnosis, and have tested and judged the worth of therapeutic aids in the treatment of disease. But as teachers they have not made students investigators or experimenters. Not one of the recent great discoveries in medicine has been made by such a man. He has used as clinical material hundreds of cases of pneumonia, rheumatic fever, tuberculosis and chronic diseases by the score; his experience has taught him to recognize these diseases, even when the clinical manifestations are obscure, but he is no more successful than when he began to practice, in saving the life of the patient with pneumonia, in preventing endocarditis in rheumatism, in curing tuberculosis, or in checking the advance of a chronic hepatitis. It is time, therefore, that the clinical teacher should have the knowledge necessary to carry on experimental investigation, with hospital facilities for the work that the profession may become purged of the shame of helplessness in curing so many of the common diseases of mankind.

The patients who will be received in these hospitals will be fortunate. They will receive the most painstaking examination and study, and the experiments made on animals in the laboratory will benefit the patients directly, inasmuch as more rational therapeutic measures will be applied in cases so investigated. In addition to the clinical teachers, who will devote all their time to teaching and research work in the special hospitals, there will be quite as much need for the clinical teacher, who is in private practice, in the general hospitals. Under his direction the student may himself investigate a hospital or ambulatory case, and undertake the care of the patient. His rich and varied experience in hospital and private practice will enable him to round out the student's college education. He will impart to the student a better idea of medicine as a whole. He will coordinate and arrange the isolated facts of clinical and laboratory investigation, and give them their true and relative value. He will teach the student the art of medicine; he will teach him that human sympathy and encouragement of the sick and dying are a part of his duty as a physician.

It would be most practical to make the clinical work of the third year a clinical drill and experimental course, given in the special hospitals, and assign the students of the fourth year to the general hospitals and to the clinical teachers who are in private practice. All the general hospitals and dispensaries controlled by the medical schools could be utilized in the fourth year for this purpose, and afford the student an abundance of clinical material and the benefit of the experience of many clinical teachers. Many of the assistants in the special hospitals, of the third year course, would doubtless engage ultimately in private practice, and would, because of their scientific attainments, make excellent clinical teachers in the fourth year. A medical school conducted on the high plane advocated must necessarily be under the control of a university. Such a medical school would cost an enormous amount of money, and this can be commanded only by the trustees of a university of the highest order. That the money for the purpose of establishing and maintaining university medical schools with research hospitals and university clinical courses will be forthcoming can not be doubted. The world is awake to the great discoveries recently made in medicine. The wealthy men of this country have had their interest aroused as never before in reference to the possibilities and benefits which medical investigation will give to mankind. They now recognize that they and all posterity will be benefited by every new fact discovered in medicine, and that physicians thoroughly and scientifically trained are necessary to conserve the health of the people.

Three years ago Prof. W. W. Keen, in his address as President, deplored the fact that medical schools received relatively little aid in the form of endowments as compared with universities and colleges of philosophy, art and theology. Since that time several millions of

dollars have been given for medical education and scientific research. The signs of the times point to a brighter future of medicine in America.

EDUCATION PRELIMINARY TO MEDICAL STUDY.

The subject of the educational requirements for matriculation in medical schools has been discussed at many meetings of this Association in its earlier years, and later by the college associations, by the American Academy of Medicine and by the various state boards of health.

The requirements were at first lamentably low, and the efforts of the Committee on Education of the American Medican Association and of the college associations had but little effect, because they possessed no legal power to control the schools.

The influence of the various boards of health of several states, notably Illinois, was more marked, inasmuch as these state boards possessed a mandatory power. The colleges were forced to adopt the minimum educational requirements of the state boards of health if their diplomas were to be recognized by the respective state boards.

These moral and legal influences to improve the preliminary requirements were almost nullified by the practice of a majority of the medical schools in admitting students whose educational status was examined into and judged by a committee of the college faculty.

This practice is still followed by a majority of the medical schools, and results in the admission of many students who are unable to fulfill the prescribed requirements. As a subterfuge, students are often matriculated conditioned in one or even several subjects. Then the student and the faculty committee forget all about the subject, and the student completes his course, goes into practice, and dies with the conditions still undischarged.

The present requirements of the college associations and of the various state medical examining boards and state boards of health amount, on the average, to a high-school education. The curricula and length of course of the high schools of the different states, and even in the same state, differ very substantially. However, if the medical schools now in existence would honestly require as a minimum education the diploma of a high school, without regard to the rank, it would be a marked advance over the present requirements as practiced by most schools.

We must admit, too, that there are medical schools of such a low educational grade that they have no right to demand of their matriculates as much even as a common school education. This fact that low-grade medical colleges exist is one of the most satisfactory explanations of the difficulty encountered in elevating the standard of preliminary requirements.

To get at the root of the matter the medical college must be brought up to the proper educational standard, and then, and then only, can be made a proper preliminary educational requirement.

UNIVERSITY MEDICAL COLLEGE.

The present status of medical science requires and demands a university medical college course. By university medical college is meant a medical school which is directly connected with and a part of a university; the university fixing the requirements and controlling the admission of students to the medical department. The method of teaching both the fundamental and the clinical branches is on the principles outlined above. To properly prepare for such a course the student should have, as a minimum preparation, at least two years of study in a good college or university. The requirements to enter a good college or university would insure a sufficient knowledge of the ordinary school branches and also Latin or Greek. During the two years' course in college his time would be well spent in the study of English, French, German, mathematics, history, philosophy, physics, chemistry, general and organic, and qualitative analysis, comparative anatomy and general biology. The amount of time to be devoted to each of these subjects would be the same as that of students of general science, as arranged in all college curricula, with the exception of a much more thorough course in chemistry, biology, physics and comparative anatomy.

So prepared, the medical matriculate would be able to grasp all the intricacies of the subjects of the fundamental branches of medicine. With the addition of the full medical college course, as outlined above, his education would be equal in culture to that of the graduate in arts and philosophy. At the same time, it would be practical and especially fit him for his work as a scientific investigator or practitioner, or for both.

With the medical profession so educated a physician would be, in truth, a member of a learned profession. From an educational point of view he would rank as an equal with the scholar in philosophy, law and theology. As a man he would be recognized as the greatest benefactor of mankind.

With the establishment of university medical schools the first two years of work in the medical school will consist of courses in pure science. Then, doubtless, all universities will adopt the plan which two or three universities have already put in practice. That is, that the student who completes the two first years of the science course of a university, or at a college of good standing, may enter the sophomore year of the university and take the first two years' work in medicine, as the sophomore and senior years of the bachelor's course, when he would receive the degree of S.B. The student who completes the three years of the arts or philosophy course at a university, during which he should take a large amount of work in physics, chemistry and biology, could then enter the medical college and after two years receive the degree of A.B. or Ph.B. After two years spent in the clinical school he would receive the degree of M.D.

This telescoping of the literary and medical courses affords the advantage of an economy of time, while it does not in any way lessen the value of the result to the student. In the one case the student secures the degrees of S.B. and M.D. after about six years of study, and in the other the degrees of A.B., or Ph.B., and the degree of M.D. at the end of seven years' study.

THE OUTLOOK OF MEDICAL EDUCATION IN THE UNITED STATES.

Medical education must advance to its proper level if it complies with the present status of the medical sciences and the demands which continued evolution in medicine promises.

What does this imply? It means that the private—the proprietary—medical school which is conducted for commercial reasons must go. Acknowledge, as we must, the great value which the best of these schools have been to the profession and to the country, all such schools have lived past the time when they can be of value. The continuation of these institutions henceforth will be harmful. They can not command the money to build, equip and maintain the laboratories and hospitals which a proper and adequate medical education demands. In the past their graduates have furnished the many great and influential medical and surgical clinicians of

this country. In former days a graduate poorly prepared has been able, by indefatigable labor and post-graduate work, to place himself in the front rank as a clinical physician and surgeon.

To-day medical science demands primary instruction to fit a man as an investigator and scientific physician. If not properly educated he can not grasp the great problems which medicine presents to-day as he did the more simple clinical facts which comprised the art of medicine and surgery a few years ago. In the future medicine must be taught in the large universities of the country and in the state universities which are situated in or near large cities, where an abundance of clinical material may be commanded.

The state university and the college which desires to teach medicine, and is so situated that it can not command clinical material, should confine itself to teaching the sciences fundamental to medicine. These should be taught as pure sciences, and should be included in the course for the degree of S.B. A college or state university ambitious to teach the medical sciences can do so without great cost. To attempt to teach applied medicine without proper and adequate hospitals, and with an insufficient number of patients, would be irrational, nor can they command the necessary funds with which to do it. From such colleges and state universities the students could go to the larger institutions which are able to furnish the proper facilities for teaching applied medicine and surgery.

The general hospitals of many of the cities, now used by proprietary schools, could be utilized as clinical schools for both undergraduate and post-graduate teaching, conducted by the clinical teachers in the existing proprietary schools. Indeed, these hospitals could be utilized as university extension clinical courses. Necessarily they would have to be under the control and direction of a university medical school.

How many schools may be necessary to educate the number of doctors of medicine required annually in the United States? The question one can not answer, but it is safe to say that 2,500 graduates annually will fully supply the demand. This would imply about 10,000 to 12,000 matriculates. A minimum number of twenty-five and a maximum number of thirty-five medical schools should offer sufficient facilities to educate 10,000 students. The various state universities and the colleges which offer adequate science courses would educate a great number of students in the fundamental branches, or in the first two years of the medical course.

MEDICAL RECIPROCITY BETWEEN THE STATES OF THE UNION.

The low requirements of some medical colleges, and the want of uniformity in the requirements for a license to practice in the different states, has resulted in a condition which entails much hardship on a physician who desires to remove from one and to engage in practice in another state. The rules of most state boards of medical examination and of health are so stringent that a physician or surgeon of years of experience and of acknowledged skill and education, and the specialist who may be renowned in his field of work, are obliged, like the recent graduate, to take an examination in all of the branches of medicine and surgery in order to secure a license to practice in the state of his adoption.

To correct this evil it has been suggested by a member of the American Medical Association, and concurred in by others, that a national board of medical examiners be organized; that the board hold examinations at different seasons of the year in the various large cities, and that the diploma so obtained shall be recognized as a license to practice in any one or all of the states and territories. The measure suggested seems to be practical and feasible.

In addition to this plan, it remains to be said that the degree granted by the future university medical school will be undoubtedly recognized as an evidence of fitness to practice in any state in the Union. When we shall have a less number of schools and annual graduates the various states may safely and rationally become more liberal and discriminating in the conduct of their office.

THE INFLUENCE OF THE AMERICAN MEDICAL ASSOCIATION.

The American Medical Association should maintain its interest in the elevation of the standard of medical education, one of the chief reasons of its organization. Its influence in former years was principally moral. This was of considerable value, for the reason chiefly of the high ideals of the founders and first members of the Association, who advocated and fought for a higher standard of medical education. In the future its influence should be many fold that of the past, for with the reorganization of the profession, the better methods of conducting its affairs, the increased and probably very large membership, and its great medical journal, it should wield a great influence for good.

As the direct agent by which the American Medical Association may exert its influence in the elevation and control of medical education, the Committee on Medical Colleges and Medical Education should be made permanent and should be given adequate power and sufficient annual appropriation to make its work effective.

This Association should, therefore, stand for, and should use its whole power to improve, medical education in this country. It is said that we never exceed our ideals in practice, and that if we lower our ideals our conduct sinks to a lower level.

The American Medical Association should take as its ideal and standard of medical education the university medical college, with all the name implies in regard to the fundamental medical sciences, and to the clinical branches. It should use its influence to drive out of existence those proprietary medical schools which are conducted solely as money-making institutions. These measures can not be accomplished at once; but medical science demands it, the profession demand it, the people demand it, and look to the American Medical Association as the chief influence which shall accomplish this end.

To Whom Does a Prescription Belong?—In France it is the custom to give the prescription to the one who pays for it, according to a recent article on this subject by Carles in the "Journ. de Méd. de Bordeaux." The pharmacist in the cities merely keeps a copy of it and the prescription is given up with the medicine as it is paid for. In the country, the proportion of illiterate is so large that the pharmacist is always urged to keep the paper, and this is now the custom. The prescriptions are also kept when dispensed to members of benefit societies, as payment is made by the treasurer on presentation of the prescriptions. In case secrecy is desired the member can pay for his medicine out of his own pocket and thus claim the prescription. The pharmacist also keeps the prescription if he discovers that the physician signing it has made a mistake, rendering it impossible for him to dispense the medicine called for, until after consultation with the physician.

Orations.

CANCER AND IMMUNITY.

ORATION IN SURGERY, DELIVERED AT THE FIFTY-FOURTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT NEW ORLEANS, MAY 5 TO 8, 1903.

A. F. JONAS, M.D.
OMAHA.

On such occasions as this we take great pleasure in recalling the past and dwell with great delight on the achievements along the lines that have most engaged our attention. We, as surgeons, especially those whose professional activity began in the pre-antiseptic period, review the successive changes from that period of expectancy to the present period of aseptic accuracy with the greatest satisfaction. No one can fully appreciate the present status of surgery who is not personally familiar with the period when wound complications were the rule and when faith was pinned on the belief in "laudable pus."

However great the change has been in surgical mortality, in the great improvement in wound repair and in the comparative freedom from wound complications at present, when we consider the number of diseases treated surgically we must confess that many problems remain unsolved. We are not prepared to say, even now, as Boyer did in his great work, Traite des Maladies Chirurgicales (1814-1822), that he believed that surgery had reached perfection. The great advances of the past have taught us the imperfections of the present and have pointed out to us the lines of research for the future.

At the outset, we are not unconscious of the fact that the profession itself is not yet agreed on many well-founded propositions. Many still cling with too much tenacity to old and deeply-rooted doctrines. Progress has been so rapid. The surgeon has, perhaps, been in advance of the physician along scientific and practical lines. The physician has observed that the surgeon has gradually invaded his field, thus creating some antagonism, but it has become less apparent and more co-operation has been the rule since bedside observation and a clearer pathology have demonstrated the actual conditions.

In this connection, we are convinced that there is still too much difference of opinion between the physician and the surgeon regarding the so-called borderland cases. In that class of affections which primarily are so-called medical, and later may become surgical, in which the early stages are obscure, where no positive diagnosis can be made, where there is no improvement from the usual internal treatment, these constitute a class where an exploratory incision would not only make a diagnosis clear, but would frequently lead to a cure.

Still, too much time is wasted in the medicinal treatment of such affections as goiter, tubercular lymph nodes, pulmonary abscesses and gangrene, empyema, abscesses and tumors of the liver, obstruction of the biliary passages, diseases of the pancreas and tubercular peritonitis. Chronic Bright's disease and ascites due to hepatic affections, always believed to be purely medical, have recently received the attention of surgeons and the success has been sufficient to give much encouragement. The foregoing constitute a class of borderland cases in which it is often impossible to state where medical management ends and where surgical treatment begins.

Surgical advancement in the future will not consist so much in the radical changes in operative technic as in improvement in diagnosis and diagnostic aids. Many of our diagnostic formulæ are even now undergoing complete changes, and the future will lead us to a precision in the recognition of disease that we little dream of now. The early recognition of malignant disease is a problem of future development, especially malignancy affecting the internal organs. With our present aids it is impossible to recognize internal cancers sufficiently early to do a radical operation. Our only course at the present is an exploratory incision as soon as reasonable grounds for malignancy exist.

The field that seems full of promise and gives us hopes for great expectations in the future is that of immunity and immunization. It now seems that many tissue changes will be solved along these lines.

From our present viewpoint the question of immunity seems to tower above and overshadow all others. It involves the greatest problems for the future investigator to solve. Out of these researches will be evolved methods for the exact treatment of that great list of surgical affections which, at present, we can fortunately, to a great measure, avoid by exact asepsis and can control, to a great extent, by antiseptic measures when once developed. But we still stand helpless in the presence of severe forms of septicemia, pyemia, tetanus and other toxic invasions. Infections sometimes occur after the most carefully executed operative procedures. Accidental infections will always comprise a large proportion of our surgical material, a group of cases that furnishes a fatality all too great.

Our present helplessness in the presence of extreme toxemia, we must confess, lies in our imperfect knowledge of the exact conditions under which the toxins operate. We may say, in a general way, that toxic bodies attack and destroy cellular elements. When, however, we study this question of infection in a more serious manner, we find that a flood of light has been thrown on this problem by Ehrlich and his followers.

The two greatest problems of the future, cancer and immunity, shall engage our attention to-day. Malignant disease seems to be on the increase. We stand so helpless in its presence when fully developed that we exert our feeble energies and grasp eagerly for any fact that seems to offer new light for its better understanding. It will be our effort at this time to review, as briefly as possible, the more important facts known regarding the etiology of cancer and then, after making clear to ourselves the revelations thus far made in the recent studies of immunity, determine, if possible, what relations, if any, exist between the two.

These considerations were prompted by personal observations made in a number of cases of undoubted malignancy that indicated the probable infectiousness of cancer. It is well known to us all that the infectiousness of most infectious diseases was first determined clinically and that the clinical observations were later determined and confirmed microscopically and experimentally. The cases to be here related came under the author's personal care, and it is hoped that they may serve as contributory evidence to the observations already recorded by others *that malignant disease, under certain conditions, is infectious.*

CASE 1.—Mrs. H., aged 40, of spare build, very small amount of adipose tissue, presented in the outer and upper quadrant of the left breast a hard, nodular, painful, movable, walnut-sized growth, of one year's duration. In the axilla could be

felt a hazelnut-sized nodule. She had frequent lancinating, radiating pains in the breast. There were no evidences of acute or subacute inflammatory signs, no local redness or elevation of temperature. The clinical diagnosis of cancer of the breast was made and a radical operation was advised. Various family matters prevented her from submitting to an immediate operation, so that several months passed, after which it was observed that the neoplasm had diminished in size and it finally disappeared.

It may be urged that this may not have been a cancer or that no one should make a diagnosis unless there be a confirmation by the microscope. Is the microscope always certain? We have all observed cases that ran a clinical course of malignancy after the microscopic findings indicated benignancy, and vice versa. The pathologist always inquires after the clinical features. He is disinclined to give an opinion unless he can know something of the history and symptomatology. The above case, in every detail, resembled many others that were demonstrated microscopically to be malignant, consequently it would appear that we are justified in the clinical diagnosis of cancer.

CASE 2.—Mrs. J., age 35, presented herself with an inoperable, extensively ulcerating carcinoma, involving the outer half of the right breast. The breast was unusually large. The outer portion of the ulcerating surface had been in constant contact with the upper and inner side of the arm. Portions from both breast and arm were removed for microscopic examination and proved to be alveolar carcinoma. No operation. She died in three months.

CASE 3.—Mrs. D., age 35. She came under observation with a typical epithelioma of the cervix uteri. The vagina was large and relaxed, so that the neoplasm rested in contact with the lower portion of the posterior vaginal wall. Hysterectomy was recommended, but was refused. She presented herself again in two months, in which time there had developed an epithelioma at the point of contact between the cervical growth and the posterior vaginal wall. An operation was done, but the patient died from recurrence eight months later.

CASE 4.—Mrs. G., age 45. Came under observation with a typical cauliflower growth involving the cervix uteri. Small particles were removed, which proved, microscopically, to be carcinoma. The uterus was fixed, the growth appearing to be too extensive for operative interference. No operation was advised. After several months the neoplasm became smaller and gradually disappeared, the uterus becoming movable. At the present time, eight years later, she appears well.

Here we have four cases of undoubted cancer, each one of which presented some of the features of an infection, as in lupus or syphilis. Cancer is extremely slow in its development, its premalignant stage often lasting many years. This fact possibly may account for the negative outcome of inoculative experiments hitherto conducted. This long developmental stage is not unlike lupus, leprosy and other forms of undoubted infection. In two of our cases we observed secondary growths which appeared at points where the primary neoplasm was brought, more or less continuously, in contact with previously healthy surfaces, a very common occurrence in nearly all forms of infection. In two of our cases the neoplasm disappeared spontaneously, the disappearance depending, no doubt, on some form of katabolism not yet understood. The elucidation of this form of cytomorphosis will give the key to the control, inhibition and elimination of the atypical cell proliferation which constitutes malignancy.

The term cancer, so commonly employed, refers to growths made up chiefly of epithelial cells. There is really no good reason why the term cancer should be limited to epithelial growths. Cancer signifies "crab." It was originally used to signify malignancy and meant connective tissue growths as well as those of epithelial origin. For our purpose at this time we will limit the term cancer to epithelial neoplasms and we will confine these considerations to its etiologic factors.

The mystery of its origin seems as deep almost as in the days when cellular pathology was unknown. No problem in pathology has received more thought and speculation, no subject has had bestowed on it more earnest effort and unremitting toil. Regarding its etiologic evidence we must confess that we have only a mass of negative proof. When observers believed that they had found the specific organisms, scores of workers in the same field soon demonstrated their error. So, today, we can only say that the evidence which shows what we do *not* know of the cause of cancer is voluminous, and we must admit that we know little of its etiology.

We know something of its cell characteristics. We know that malignant disease is essentially a cell proliferation that has, biologically, many features that are opposed to the physiologic tissues in which they take their origin. We find an atypical life history in the cancer cells. The nucleus divides in an asymmetrical way. We note that unusual karyokinetic figures in the nucleus are usual in new growths, pointing to changes in the cellular life history. Regarding carcinoma, certain bodies have been demonstrated, believed by some to be parasites, having some causal relation to the cell changes.

It is a well-established fact that the nucleus perpetuates the nature and function of the cell, and any change in the nucleus changes the cell in its function and process of division. According to W. V. Shaw, "the growth of cancer cells is then to be looked on as an effort of reproduction in damaged tissue, the incidence of the damage falling on the nuclear structures."[1]

This statement is based on observations made by him in connection with experiments on free swimming larvæ which developed from the stimulation of ova of certain lowly organized animals, causing a proliferation of cells. The ova had not been fertilized by spermatozoa. Adult organisms were not developed, but larvæ capable of independent life. These results were obtained by stimulating the ova with strychnia and by mechanical movements of the ova. This cell growth was compared to growth of tissue in partially damaged structures. Shaw believes that such damage alters the nature of these cell structures so that the vegetative functions of the cell run riot and the cells become parasitic toward the organism in which the growth is taking place. This view seems to find support in those connective tissue growths that develop in tissues that have sustained a trauma and in which the sarcoma develops; or in epithelial growths that form on surfaces that have been subject to prolonged irritation, as exemplified by the chimney-sweep's and paraffin-worker's cancer forming on an old chronic dermatitis; or a cancer forming on the site of a prolonged irritation by the smoker's pipestem on the lower lip. We have seen many times that cancer develops in epithelial tissue that has been subjected to irritation for a long time, usually extending over a period of years. We have long recognized irritation to be at least one of the causative factors. Just what metabolic disturbances take place and what the underlying causes are, is not yet clear. That cancer is infectious has been proven by many clinical observations. This has been shown by Eberth, who collected 22 cases where cancer was transmitted from lip to lip, tongue and palate. Behla reported

1. The Lancet, Sept. 20, 1902.

eight instances of death from malignant growths in physicians and surgeons who were inoculated from tumors and four instances of apparent human infection from cancerous animals, dog and hen. He also alludes to a cancer epidemic among the white mice in the Pathological Institute at Freiburg as evidence of the contagiousness of cancer (Hektoen). Roswell Park believes that, for New York state at least, cancer is increasing at an alarming rate.

Attempts have been made to show that cancer is endemic, peculiar to certain localities. Behla cites cases of Behrens, who found in a village ten deaths out of thirty-eight to be due to cancer. Pfeiffer, Powers and Friesinger maintain that in certain houses (cancer houses) and marshy districts in the vicinity of ditches and streams containing sluggish water, especially if the stagnant and polluted water were used for watering garden vegetables and for drinking purposes, cancer is relatively frequent (Hektoen). This would point rather to a microphyte than to a microzoon as the etiologic factor.

Since infection of living tissue is believed in every instance to be due to bacterial invasion, naturally bacteriologists directed their attention toward the discovery of a specific germ. Very soon we had a long list to enumerate. Plimmer of London examined in six years 1,298 carcinomata, and in 1,130 he believed that he found parasitic bodies. Sjöbring laid much stress on cell inclusions. Russell described his fuchsin bodies, which were spherical or oval. L. Pfeiffer of Weimar published several monographs on the protozoa as a cause of cancer. Eisen brought out his *Cancri amœbæ*. Korotneff believed that he had found an organism which he termed *Rhopalocephalus carcinomatosus*. Bosr found and described an organism that he called *Myxosporidia coccidia*. Gaylord of Buffalo described at great length bodies that he believed bore an etiologic relation to cancer. Sanfelice of the University of Cagliara emphasized the etiologic importance of bodies that he named *Saccharomyces neoformans*. A very large number of other publications on this subject made their appearance, none of which differed in any essential point from those bodies just mentioned.

While the presence of the aforesaid bodies described by the different observers can be demonstrated and are present in a large proportion of the cases of cancer, all the requirements necessary to prove them to be the organisms solely responsible for cancer have not been fulfilled. The requirements necessary are (1) the organism must be isolated; (2) a cancer must be produced when the organism is introduced into another body; (3) the organism must be recovered from the cancer produced. It has been shown that, while the first requirement has only apparently been fulfilled, the second has been, in a number of cases, seemingly produced. More careful investigations have proven that the experimental growths were not cancer. The third requirement has not been fulfilled.

All of the work mentioned above was carefully reviewed in all its details by the cancer committee, who, in their second annual report to the surgical department of the Harvard Medical School, showed conclusively that the bodies described by the various investigators under different names were not cancer nor the cause of cancer. I can do no better than to quote in full the results of their labors. They bear the marks of painstaking and conscientious work. The conclusions of the Harvard cancer committee were written by Edward H. Nichols and are as follows:

It has been claimed by the adherents of the theory of the parasitic origin of cancer that

1. A proliferation of epithelial cells analogous to the lesions seen in cancerous tumors can be produced by certain well-known protozoa (nodules caused by the Coccidium oviforme).

2. Certain skin lesions characterized by epithelial cell proliferation are due to the action of a so-called protozoon (Molluscum contagiosum).

3. Blastomycetes are constantly present in human cancers and are the cause of the lesion.

4. By experimental inoculation of animals with blastomycetes, true epithelial or cancerous nodules can be produced.

5. Finally, the well-known endocellular bodies seen in the protoplasm of cancer cells have a definite morphology, are parasites and the cause of cancer.

It has been the object of the investigators, the results of whose work appear in the preceding pages, to study each of these questions. As a result of the lines of work pursued by them under the direction of the Cancer Commission during the past year, it is concluded that:

1. The lesion produced by the Coccidium oviforme is essentially a process of chronic inflammation and is not analogous to the lesion seen in cancer.

2 The lesion of Molluscum contagiosum is characterized by certain changes in the epidermis, is not due to the action of a protozoon and is not analogous to cancer.

3. The so-called "blastomycetes" (saccharomycetes) of Sanfelice and Plimmer are torulæ.

4. The lesions produced by these "blastomycetes" (torulæ) are, essentially, nodules of peculiar granulation tissue, are not cancerous, nor, in any sense, true tumors.

5. Blastomycetes are not constantly present in human cancers.

6. The peculiar bodies seen in the protoplasm of a cancer cell are not parasites, nor the cause of the lesion, but probably are, in part at least, atypical stages of the process of secretion by glandular epithelium.

It is clear that in the present status of the etiology of cancer, bacteriologically considered, the case has not been proven. But it does not follow that it will not be shown that cancer is due to a specific and well-defined organism. It may be an organism so minute as not to have been brought within the range of the microscope. It is possible that no stains have yet been found that possess the requisite affinity for its complex molecular constitution. The necessary artificial medium for its cultivation remains for some future investigator to solve. Be it what it may, since the clinical features give strong evidence of the infectiousness of cancer, the search must and will be continued along the same lines.

In this search for a specific contagium, cellular metabolism must not be forgotten. Its consideration and study is perhaps more important than the isolation of a specific germ. It can not be denied that the more exact our knowledge of cytomorphosis becomes the clearer will be our understanding of cell proliferation. It has long been understood that there must be certain stimuli that cause cell growth and certain inhibitors that limit cell development and exercise control in accordance with the requirements of the tissues. Certain other influences bring about a disturbance of the normal equilibrium between the stimuli and the inhibitors. It is evident that the exact nature of the stimuli, the inhibitors, and the disturbers must be ascertained. This involves a study of the cell constituents and the fluids that surround it. As we see, it is a question of chemistry.

In this connection, it is important to take note of a very novel hypothesis bearing on the formation of new growths propounded by Homer Wakefield.

He believes that a neoplastic formation is not an exaggeration of anabolism, increased or excessive prolifera-

tion, but that it is a product of katabolic stasis; that is, normal cell division is unimpaired, the anabolic process continuing to the point of maturity of the cell. It attains the meridian in its life and reaches the post-meridian state when it should undergo normal katabolism, a complete dissolution and disappearance of the cell. Instead, something has supervened to check katabolic changes, the cell becomes superannuated and its existence is prolonged until finally it undergoes various degenerative changes. Normal cell production continues, but normal cell dissolution is retarded or abolished, hence the cells accumulate, producing the appearance of what is regarded as cell proliferation.

This condition Wakefield has termed katabolic stasis or subkatabolism. He states that the intercellular substance is richly alkaline and that the tissue cells are more or less soluble in it. The cells, during the period of their growth, generate sarcolactic acid and during this period they are richest in protoplasm. After the meridian the cells offer decreased resistance to the solvent powers of the alkaline medium and lose their protoplasm, the nucleus alone remaining.

He infers that, before the meridian is reached, the acidity produced by normal cellular activity protects the cells by its neutralizing effects on the intercellular alkalies and that this preserves the investment of protoplasm. Now, if from any cause, the normal alkalescence of the intercellular substance is reduced or if, in a given area, the acidity increases, katabolic stasis affects all the cells in that area. Suboxidation consequently takes place. It is therefore believed that cancer formation is an acid process.

Briefly, tumor formation, according to this hypothesis, rests on a stasis of katabolism, subkatabolism and suboxidation, in the presence of normal anabolism. The cell inclusions, observed by many investigators and regarded by them as protozoa, cancer parasites and as blastomycetes, Wakefield regards as products of disturbed nuclear division. This new hypothesis, at present, rests only on theoretical grounds, but the arguments are so thoughtful and so suggestive that they deserve careful attention. Their chief importance, at this time, consists in the bearing out and support of the methods of research along chemical lines.

We are all familiar with Virchow and the birth of cellular pathology, with Ehrenburg and the growth of bacteriology, and now we have arrived at, and are in, the humoral or chemical era. The trend of all research at the present time is beyond cells and beyond bacteria. It is to determine the chemical operations in and around the cells. This line of research began in the leucocytes because they were the most available. In their study it was possible to establish basic principles. From the leucocytes to the erythrocytes was only a step and then the epithelial and connective tissue cells received attention. This field of research is a new one. It is occupied by a vast army of patient and earnest toilers. The fruits of their labors will be beyond our greatest expectations. It is our present purpose to see if the cancer problem can be solved along these lines.

What has malignant disease to do with immunity? The entire subject of immunity has to do with infection. It has to do with its nature, mode of action and control. Has cancer any characteristics that pertain to infection? Bacteriologically we have found none. Clinically we have a mass of evidence that would seem to place cancer among the infectious diseases.

In order to have a clear understanding of the modern conception of immunity it is necessary to review as briefly as possible and in barest outlines without comment the most important features of our present knowledge of the subject. Much material that may seem essential to a complete elucidation of this great and important subject, had to be eliminated on account of the limited scope of this dissertation.

More than a century ago we find that John Hunter was familiar with some antiseptic properties of the blood. He found that a small amount of putrefying material could be added to a given quantity of fresh blood without producing putrefaction. Consequently, he advanced his doctrine of "the living principle of the blood." This, as an observation, was almost forgotten and its import was not fully realized until Nuttall, in 1888, began his systematic work in Flugge's laboratory, studying the antibacterial properties of the body fluids, especially the blood serum.

The greatest impetus to the study of immunity was given by Metschnikoff in calling attention to the participation of the leucocytes and other cells in the process of infection, establishing his well-known theory of phagocytosis. His views are so well understood that we need only to call attention to them at this time.

Following Nuttall, Pfeiffer discovered, in 1894, "the extracellular disintegration and solution of cholera spirilla in the peritoneal cavity of immunized guinea-pigs."

The greatest attention and interest was aroused by Behring's great discovery of antitoxic immunity. Bacteriologists at once endeavored to elucidate by elaborate researches the exact way in which immunity was established. Chief among these was Ehrlich. It was soon shown, however, that immunity in most bacterial infections did not depend, in the main, on the antitoxic principle.

Pfeiffer's phenomenon afforded a starting point from which Metschnikoff, Bordet, Ehrlich and Morgenroth began their labors and brought forth a series of discoveries that have been epoch making.

A series of antibodies were differentiated and classified as antitoxins, antienzymes, cytotoxins, agglutinins, precipitins and coagulins. Antibodies were in turn produced by these, with the exception of the antitoxins.

It was determined that to every cellular group of an animal species there appears to correspond a specific cytotoxin. These various toxins have been termed leucotoxin, neurotoxin, spermotoxin, nephrotoxin, thyrotoxin, etc.

These antibodies have been divided into two groups, first, the antitoxins which are single bodies; second, the cytolysins, whose antagonistic effects require the cooperation of two bodies.

Of these two bodies, the one which actually destroys the foreign cells is normally present in the cells or fluid of the organism, but it seems incapable of action without the intermediation of a body which is distinguished from it by a greater resistance to heat. The two elements composing cytolysins exist quite independently of each other so that one may be present without the other or be artificially removed without affecting the other.

To demonstrate the mode of action and constitution of the specific antibodies, Ehrlich has propounded the theory of receptors or side-chains. The atomic grouping of the toxin molecule, which affects the union with antitoxin as well as with a particular cell, he has designated as haptophore groups.

In view of the fact that certain molecule groups of the living protoplasm favor the taking up of certain poisons, he has termed them receptors. According to his theory of antitoxic formation, after the introduction of toxins the receptors are produced in excess and finally are thrown off into the blood as useless ballast. The free circulating receptors are the antitoxins, termed amboceptors, intermediary bodies. The action of antitoxins is explained thus. They take charge of the haptophore groups of the toxin molecules and prevent them from approaching the receptors of the tissues.[2] There are as many receptors as there are toxins, while almost every day new ones are discovered.

Behring gives the most exact and brief definition of Ehrlich's antitoxin theory: "The same substance, which, when incorporated in the cells of the living body, is the pre-requisite and condition for an intoxication, becomes the means of cure when it exists in the circulating blood." Every antiserum protects only against substances through which it becomes immunized. Every antiamboceptor protects only against its particular amboceptor.

Ehrlich and Morgenroth found, in experiments with goat's blood, thirteen different new lysins which represent so many receptors. "The receptors are in the cells, not for the purpose of linking poisons to the cells, but to seize certain foodstuffs, particularly proteids, and the toxins, bacterial and other foreign cellular substances, if capable of inducing the immunizing reaction, chance to have the requisite combining affinities for the receptors."

The living body possesses bactericidal and cytolytic substances which may protect it by destruction of invaders or may injure it by destruction of its own cells, according to the mates with which they are paired.

In considering the physiologic mechanism of the cells we find that they are designed, primarily, for the assimilation of food, and secondarily, to meet pathologic conditions, the production of antitoxins, cytolysins and other similar bodies. The receptors are in the cells for the purpose of taking up foodstuffs, chiefly proteids. The toxins and bacterial cellular substances have combining affinities for the food receptors, if they are capable of inducing an immunizing reaction.

In producing immunization against bacteria, it is the intermediary body (amboceptor) which is generated. It has been found that these antibodies have a specific relation to the substances which caused their formation, as has been shown by the injection of a specific serum into an animal at certain intervals, of toxins, against which an antitoxin is desired.

The specific nature of these antibodies is further shown in their application to serum diagnosis, as shown by the Widal agglutination test for typhoid fever and the serum test in the diagnosis of bacillus dysenteriæ Shiga, an organism shown to be the cause of acute dysenteries by Flexner, Vedder and Duval.

When Roux and Yersin discovered diphtheria antitoxin and Ehrlich the origin and mode of action of antitoxin, a lasting foundation for the study of immunity was laid. It was positively shown that "soluble toxins enter, as assimilable substances, into combination with constituents of the body cells for which they have an affinity," and are enabled to produce immunity or to exert toxic effects.

The expectations that we should soon be enabled to solve all questions regarding the action of toxins after the discovery of soluble bacterial toxins, have only partly been realized, especially regarding the action of the pyogenic micrococci, which concerns us most as surgeons.

However fruitless, hitherto, the practical results regarding toxins of many pathogenic and especially pyogenic organisms, the principle has been established, and it is only a question of method and time when all body toxins and their antitoxins shall be definitely known.

Pfeiffer directed his attention to the bacteria and found substances, toxins, in cholera spirilla, which became free only after the bacteria were dead and which were termed intracellular poisons. This was a most important step in advance, but we must acknowledge that we know as yet very little about the action and nature of intracellular bacterial poisons.

It is interesting to note from the result of Flexner's experiments with venom that their action on red blood corpuscles, leucocytes and nerve cells is like that of duplex cytotoxins, which depend on the combination of intermediary bodies contained in the venom on one hand, with corresponding complements in the cells or fluids acted on. This is shown by the addition of venoms to fresh blood, which brings about the quick destruction of the red blood corpuscles. If the fresh blood has been washed with an isotonic salt solution, so as to remove all the complement, we find that the corpuscles are not dissolved, but agglutinated. It seems that the venom serves chiefly to bring "into necessary relations with constituents of the body cells, poisons we already harbor or may generate, but which are harmless without the intervention of intermediary bodies."

Flexner and Noguchi have shown that the leucotoxic, the neurotoxic and other cytotoxic properties of venom depend on combinations of venom, intermediary bodies with complements contained in the cells poisoned by venom, or in the fluids bathing these cells, indicating that the snake venom contains only a part of the complete poison.

Flexner and Noguchi also demonstrated that hemorrhages in various tissues of the body resulting from poisoning from certain venoms is due to the presence in venom of a cytotoxin which has the power to dissolve endothelial cells, which they termed endotheliolysin (hemorrhagin). It causes extravasation of blood through its direct solvent action on capillary endothelium.

The hemolysins have been most extensively studied because of their great pathologic significance, and it has been found that many bacteria have hemolytic power. The secondary anemias, so constant in streptococcus infections, in pneumonia, typhoid fever and other diseases, afford a most striking example.

Normal blood serum contains antihemolysins which protect red blood cells from bacterial hemolytic agents. Associated with hemolysins are bacterial hemagglutinins, possessing the power to clump red corpuscles.[3]

Heuter and Klebs believed that thrombi were due to the coalescing of red blood corpuscles. Welch calls attention to hyaline thrombi formed by agglutinated red corpuscles. White corpuscles are agglutinated by certain bacteria and also by pus cells.

What is urgently needed is a separation of these poisons and a determination of their source, constitution, mode of action and degree of specificity.

It will not be out of place here to allude to the studies made of the ductless glands, because of their supposed

2. Ehrlich: Schlussfolgerungen, p. 176.

3. Heuter-Klebs, p. 731

bearing on immunity. Sajous urges that the adrenal extractives have a decided affinity for oxygen, offering a key to tissue respiration and to the functions of all other organs now classed as the ductless glands. It has been found that the red corpuscles are not the only carriers of oxygen, but that the blood plasma contains and distributes this gas. Schmiedeburg, Jacquet, Claud Bernard and others demonstrated the existence of an oxidation ferment in the plasma, and these bodies are now entertained as an oxygen-laden secretion. This secretion is believed to permeate nearly all the body elements. The blood also contains a fibrinogen body which combines in certain quantities with fixed portions of the plasma's oxygen. The changes in the temperature of the blood were traced to variations in the amount of the fibrinogen in the plasma. The adrenals have been shown to be connected with the anterior pituitary body by various sympathetic ganglia. The anterior pituitary body is regarded as the governing center of the adrenal system. Over-activity of this body increases the adrenal secretion, consequently oxidation, therefore vital resistance. Depression of the activity of the pituitary body causes decreased supply of oxygen, consequently depressed vital processes.

The thyroid secretion, thyreoidin, has been shown to sustain the efficiency of the pituitary body. Excessive thyreoidin production stimulates the pituitary body and produces exophthalmic goiter. Deficient thyreoidin production leads to myxedema. The adrenals, the pituitary body and the thyroid gland constitute the adrenal system. According to this line of research, it is believed that toxins act directly on the adrenal system, and, by decreasing or increasing its secretion, decrease or increase the oxidation process. Certain toxalbumins and many drugs stimulate the adrenal secretory powers to a certain limit, and, when exhibited in excessive doses, depress or arrest the functions of this system.

The posterior pituitary body has been shown by Berkley, Andriezen and others to be the chief functional center of the nervous system. It is the center for such emotions as shock, excitement, etc. It governs all organic functions through the nervous system. The secretions of the pancreas and spleen, according to Schiff, and later by Herzen, unite and change trypsinogen into trypsin, a solvent for the albuminous bodies in the pancreatic juice. This ferment performs an important part in immunizing processes, in that it destroys toxalbumins.

Viewing these labors in the light of Ehrlich's researches, the oxidizing substance represents the amboceptor; the spleno-pancreatic internal secretion, trypsin, represents his complement. To produce a proteolytic action of trypsin, fibrinogen and the oxidizing substances are required. These views are somewhat at variance with those commonly accepted, but are of sufficient importance to deserve consideration in this connection.

From the foregoing it would seem that the doctrine of phagocytosis plays an unimportant rôle. But we find that the French, or phagocytic school, at the head of which is Metschnikoff, recognizes the full significance of acquired immunity and the cytolytic principles represented by the co-operative action of intermediary bodies and complements. The German, or humoral school, led by Ehrlich, recognizes the leucocytes to the fullest extent.

The chief difference between the French and the German school's consists in the belief by the advocates of phagocytosis that the complements reside in the leucocytes, whereas the adherents of the humoral school believe that they exist in the blood plasma.

While, in what has here preceded, we have been concerned in the consideration of chemical problems, we must not overlook the fact that behind all is a governing force which resides in the central nervous system.

The practical outcome of these studies has been found in the production of antitoxic sera, some of which have been proven to have a definite and exact effect under certain conditions. We find these sera divided into two principal groups, (1) those that have an anti-bacterial action, and (2) those that have a purely antitoxic action. Of all the sera the diphtheritic is best known. According to Welch the mortality of diphtheria has been reduced from 40 per cent. to 15 per cent. by its use.

Antitetanus serum has been disappointing. Reports coming to us from different sources are conflicting, the mortality ranging from 0 per cent. to 70 per cent. from practically the same methods, which consist in administering the serum by the subcutaneous, intracerebral and the spinal methods. Antityphoid serum has failed to fulfill expectations even more than antitetanus serum. The antistreptococcus serum of Marmorek, while it seems to have exerted a specific effect in purely streptococcic infections, appears to exert no influence in the presence of mixed infections. The antipneumococcic serum has not yet emerged from the experimental stage. Nothing can be said of its effects. The antiplague sera of Haffkine and Yersin demonstrated that, as a preventive, it reduced the number of cases to one-twentieth and the mortality in a given number of cases was reduced from 33 per cent. to 13 per cent. (Calmette). The antitubercle serum has been shown to have a specific effect on tuberculous tissue, but remains powerless in the presence of mixed infections. The antivenom serum has been demonstrated to have a positive usefulness in certain snake bites. Calmette's antivenin has been proven to be of undoubted use in leprosy.[4]

Many other sera have been described, but their usefulness thus far has been shown to be of an uncertain nature. Consequently, we will leave them out of consideration at this time.

When we pass in review all that is positively known in relation to the question of immunity, we can not deny that some of the principles underlying this great question have, in a measure at least, been revealed. The evidence is conclusive that "the same substance which, when incorporated in the cells of the living body, is the pre-requisite and condition for an intoxication, becomes the means of cure when it exists in the circulating fluid."[5]

Ehrlich, in his investigations of diphtheria toxins, demonstrated "that soluble toxins enter as assimilable substances into direct combination with constituents of the body cells for which they have an affinity, and only thereby are enabled to bring about immunity or to exert toxic effects." Further, in connection with Metschnikoff, Bordet, Morgenroth and Ehrlich, it is shown that "the organism possesses a power to produce substances specifically antagonistic to all sorts of foreign cells, cellular products and derivatives. The substances capable of inducing this immunizing reaction appears to be mainly of an assimilable, albuminous nature, or at least intimately associated with such material."

4. F. A. Packard and Robt. M. Willson: Americal Journal of the Medical Sciences, December, 1900.

5. Behring's Definition of Ehrlich's Theory Concerning Antitoxin. Welch.

The principle of toxins and antitoxins has become as firmly established as any other in medicine or surgery. We have noted that antitoxins from pure cultures have a certain affinity for and possess immunizing power in specific infections, but fail in the presence of mixed infections. We see at once that failure to immunize does not violate the principle, but that the method of application has been at fault. We know that diphtheria toxin has a specific effect for the products of the Klebs-Loeffler bacillus, and that it controls and cures in the presence of these, but fails when there is an admixture of other forms of infection. This is shown by the 15 per cent. mortality which still exists. We have noted that antistreptococcus, tubercular and plague sera have a specific and a decided effect in pure infections, but that they fail in the presence of other specific germs. We observe with satisfaction the certainty of the action of a given antitoxin in its union with the toxin from which it was produced. It at once becomes apparent that, in the presence of several toxins or a mixed infection, it will require several antitoxic substances, a combination of antitoxic sera, or a serum containing different kinds of amboceptors, so combined as to meet and unite with the several toxins in a given case. Coley endeavored to meet such indications by combining streptococcus and bacillus prodigiosus sera in treating inoperable sarcoma.

These observations presage a revolution in therapeutics, which perforce means a refinement in diagnosis, beside which, what we do now will scarcely bear comparison.

The inferences to be drawn from the foregoing indicate that the future work will be biochemic. It appears that the solution of cell metamorphosis, as it is observed in pathologic conditions, will be in the field of chemistry. Ehrlich's theory of the side-chains has given us a working hypothesis almost as practical as the atomic theory when applied to chemistry. It is not an idle dream to believe that the revelations of the future will not only consist in a complete exposition of cells and body fluids, or a perfect understanding of the governing brain centers, but may extend to the life principle itself, although life itself may and will ever belong to the unknowable.

Our chief interest, however, will always center in the cell and its governing influence. Just what influences are responsible for normal cell division may never be known. But it is within the bounds of human possibility to know what influences may be responsible for atypical and excessive cell growth. Excessive cell growth, both in the leucocytes and connective tissue cells in acute infections, we can assume to be due to toxins that are in excess of the amboceptors. The existence of cytolysins and anticytolysins is now undisputed. The one destroys, the other protects the cells. We have noted that the chief function of a receptor molecule is to combine with nutrient molecules, a metabolic, a chemical process. The birth and growth of the cell is restricted within certain limitations and is regulated by chemical law. Now the problem depends on our ability to ascertain the exact influence that carries cell division beyond its normal bounds and causes excessive cell growth as we observe it in malignant new growths. That the process is one of localized excessive nutrition is apparent. The localities of predilection are frequently at points where the cellular elements are exposed to frequent insults, where the tissues are damaged, establishing a *locus minoris resistentiæ*, as, for example, in the mouth, gastrointestinal tract and the female reproductive organs. A point of least resistence, damaged tissue, if you please, always offers a soil for bacterial invasion. Cancer very often develops in tissues that have long been irritated, no doubt liberating a complement that unites with a specific infection when introduced under proper conditions. Such is not always the case, however. In fact, we know that in the majority of tissues that sustain irritations and almost constant traumatism for many years never become malignant. The simple traumatism does not develop cancer. A specific toxin must be introduced, probably also an intermediary body to complete the side-chain, which increases karyokinetic energy. We have noted in our studies of immunity that the life or death of the cell depends on its intra- and extra-cellular composition, so we may say that the whole process, whether it relates to normal or excessive cell growth, is chemical.

An objection may be urged at this point, which consists of the fact that the propositions of immunization thus far considered affect groups of cells extending over a wide range, i. e., the vascular, the muscular and the glandular or cerebrospinal systems. It has been shown that cancer is always at the outset, and often throughout its entire course, absolutely a local disease. It would not seem rational to attempt immunization of the entire system against a strictly local disturbance. We will naturally turn our hope toward a method that will enable us to affect local immunization.

That local immunization is possible has been demonstrated by P. Römer in the following convincing abrin-immunization experiment. As is well known, abrin, which is the toxalbumin of the jequirity bean, will produce a severe conjunctivitis in animals and men. Ehrlich had demonstrated that rabbit's conjunctivæ became immune after the instillation of abrin. Römer instilled into the right eye of the rabbit weak abrin solutions, the dosage being rapidly increased until immunization was produced. In three weeks the rabbit was killed. It was then shown that if the right conjunctiva, which had undergone severe inflammation, were rubbed and macerated with a certain amount of abrin and injected into a healthy animal, it had no effect. But, if the conjunctiva of the left eye, which had received no instillation, were rubbed and macerated with abrin and injected into an animal, death always followed. Römer concluded from this observation that in conjunctival immunizations a part of the autotoxin existed in the conjunctiva itself. A local antitoxin was produced.

It would seem that these results establish definitely the principle of local immunization in indifferent tissues. These observations have an important bearing on the adaptation of the cells in local affections. That local affections of various forms or general affections with local manifestations can be best managed by the local introduction of exceedingly small doses of the specific remedy, was shown by Professor Bouchard before a recent meeting of the Egyptian Congress. He found that articular rheumatism disappeared after the injection *in situ* of small doses of salicylic acid, in some cases only half a grain. We must conclude that local cell metabolism can be influenced by local rather than by general diffusion. The inhibition of excessive cell growth must be accomplished in the same way.

It would seem, then, that the cancer question must be solved along the lines of chemistry. Since we know that contagious or infectious energy does not depend on the bacterium itself, but on its products, which are purely chemical, it would seem that it matters little whether the

specific parasite is found or not. Since the cancer germ has thus far successfully eluded the most vigilant search it becomes more and more evident that in the field of chemistry will be found the solution for our problem.

It will be difficult to rid ourselves of time-honored views. Purely theoretical speculation, like the hypothesis of cell proliferation from inclusions of embryonal matrices according to Cohnheim, must give way to the demands of modern science that insist on actual observations and practical demonstrations.

Now then, will it be unreasonable to hope, that when protoplasmic changes are thoroughly understood and when the body sera have given up their secrets and the influences that govern cell growth, that we may also find the antibodies which will inhibit cell multiplication beyond natural bounds?

The studies in the field of immunity have, as yet, only assumed the proportions of the initiatory stage. A vast unexplored wilderness lies before us. The pioneers have begun their work well. They have outfitted themselves in a manner that will, in the near future, enable them to throw unexpected light in the pathway of their conquest of discovery. They are only on the verge of this vast domain. What lies beyond the borders we can no more foretell than could Boyer know that in twenty-four years after his death we should have anesthesia and that in fifty years the world would have antiseptic surgery. And yet, in the light of our present knowledge the hope, amounting to a conviction, arises in us that even in our lifetime, if we are spared a few years more, we will have an exact bio-dynamic and bio-chemic science that will make diagnosis accurate and precise and one that will enable us to treat and control all infections with an exactness not now possible. While the surgeon is now constantly encroaching on the field of the internist, the time is not far distant when the physician may not only reclaim his own, but with it that large group of neoplasms known as malignant growths that from time immemorial has been the exclusive property of the surgeon.

REFERENCES.

Ueber Antikörper gegen die bacteriolytischen Immunkörper der Cholera. R. Pfeiffer und E. Friedberger. Berl. Klin. Woch., No. 1, 1902.

Das Streptokokken-Gift. A. Marmorek, Berl. Klin. Woch., No. 12, 1902.

Ueber die Vielheit der Complemente des Serums. P. Ehrlich und H. Sachs, Berl. Klin. Woch., Nos. 14-15, 1902.

Ueber den Mechanismus der Amboceptoren-Wirkung. P. Ehrlich und H. Sachs, Berl. Klin. Woch., No. 21, 1902.

Ueber die Complementophilen Gruppen der Amboceptoren. P. Ehrlich und H. T. Mashall, Berl. Klin. Woch., No. 25, 1902.

Ueber die Receptoren der Milcheiweisskörper. F. Meyer und L. Aschoff.

The Huxley Lecture on Recent Studies of Immunity, with Special Reference to Their Bearing on Pathology. Wm. H. Welch, The Medical News, Oct. 18, 1902.

The Present Status of Serum Therapy. Frederick A. Packard and Robert Willson, The American Journal of the Medical Sciences, December, 1902.

A Résumé of Some Recent Researches Relating to Cytolysis and Immunity. Dr. T. Mitchell Prudden, The Medical Record, Feb. 14, 1903.

Experimentelle Untersuchungen über Abrin- (Jecquiritol) Immunität. P. Römer, Archiv für Ophthalmologie, I-II Band, 1 Heft, S. 73.

The Internal Secretions and the Principles of Medicine. C. E. de M. Sajous, The Monthly Cyclopædia of Practical Medicine, January, 1903.

New Methods of Medical Treatment. Editorial, Medical Record, March 7, 1903, p. 380.

Leukaemie-Pseudoleukaemie-Haemoglobinaemie. Schlussfolgerungen von Geh. Med. Rat. Prof. Dr. P. Ehrlich, Frankfurt a. M.; Privatdocent Dr. A. Lazarus in Charlottenburg, und Dr. F. Pinkus in Berlin. Verlag, Alfred Hölder, Wien, 1901.

Ehrlich's Seitenkettentheorie und ihre Anwendung auf die künstlichen Immunisirungsprozesse. Prof. Dr. Ludwig Aschoff. Verlag von Gustav Fischer, 1902.

The Recent Buffalo Investigations Regarding the Nature of Cancer. Address of the President, Trans. American Surgical Association, 1901.

SOCIAL CONDITIONS IN AMERICA IN THEIR RELATION TO MEDICAL PROGRESS AND DISEASE.

ORATION IN MEDICINE, DELIVERED AT THE FIFTY-FOURTH ANNUAL MEETING OF THE AMERICAN MEDICAL ASSOCIATION, HELD AT NEW ORLEANS, MAY 5 TO 8, 1903.

J. M. ANDERS, M.D., LL.D.
PHILADELPHIA.

Another spacious year with its varied channels of energy and activity in medicine has closed. While a faithful chronicle of the facts, data and achievements showing the progress of internal medicine for that brief period would have proved an appropriate topic, I have availed myself of the choice privilege granted by this Association of selecting my theme, and purpose to consider the subject of the relation of American social conditions to the progress of medicine and disease and the import of modern economic and professional tendencies in forecasting the immediate future.

The state of American society, founded on democratic ideals, is one in which the true function of the physician has ever been both intellectually and morally beneficent. It has ever been the fate of the medical profession, however, to have its past outgrown and stifled by the enthralling energy and life of its present and to forget to fix its gaze on what is grand and significant in inherited associations and opportunities. Conversely, the fundamental principle of human development, to-wit, that the present is quickly passing under the control of the future, which transcends an enlightened self-interest in the present, is yet to be fully realized and appreciated. In the life of our civilization the physician has constantly found himself in the presence of golden opportunities to render a service to the community, to add his private thought to the public opinion. His high calling and the stage of social development from which he has proceeded have ever invited to the development of an expanding and humane spirit. He has been, however, in many cases too closely chained to his special work. Per contra, the individual member of commanding worth and formidable individuality, like the Spartan and the Greek, has fortunately lent his own spirit to the genius of the great organism—the medical profession—and its higher destiny. That genius is no sluggard, and the motive of action is not the pursuit of gain or of personal aggrandizement, but an incessant advancement of our art and science and an application of the faculties to the higher interests of civilization. What is needed in medicine from the standpoint of sociology at the present day in America is the true "scientific spirit clothed with human interest," to give force and direction to the means available, not only with a view to the application of science to the healing art, but also to enable our profession to find its true place in the body politic and its intrinsic importance as a factor in modern civilization.

While there are certain things and events common to all in our psychic and social development, enlightened society will grant that the larger events in American history, assuming that "the first duty of society is the preservation of life and the comfort of its units," have not been so much dominated by legislative authority and social customs as by the march of science, more particularly medical and hygienic. In a country as vast as ours, however, there could be no uniform law covering the details of results in matters medical. These have

been in the past and will in the future vary somewhat with the climate, physical conditions, degree of culture and opportunities presented by the widely separated regions. As a consequence, in displaying proportions and the practical results of scattered sections, the final adjustment of their claims only becomes perceptible and appreciable in their broader and higher generalization. The whole range of American historic data and events indicates an imperishable foundation of scientific achievement, and furthermore establishes firmly a relationship between medicine and the scientific principles underlying social conditions and phenomena that is both positive and vital. As touching the American medical history of the long past, we can see the major advances and their influence on social laws and the progress of civilization only by grouping data and established facts and applying the process of generalization to these composite phenomena. In this connection it is to be regretted that our possession of unclassified facts is increasing with uncomfortable rapidity. A comparative and historic study of the medical literature of America, taking any of the older countries as a standard of comparison, in respect to this method of generalization, can scarcely prove even measurably satisfactory. Much of the history of native medicine is crude and it were impossible to give it either crystallized or concrete form. Epoch-making discoveries and important, far-reaching scientific effort is justly the boast of the American profession. Systematic effort at a rigid classification of facts by the modern statistical method, however, has not been made, and only a partial scientific use of the ever-advancing events for the different historical periods has been attempted.

The concrete, comparative and historic method of study which alone furnishes a proper basis for generalization and serves to point out the relations of medicine to other human activities, would insure a wholly fresh treatment of the earlier medical annals of America. The physician in his economic or professional dealings has not followed his self-interest in comparison with his measure of enlightenment to an equal extent with men in other lines of human activity, but the fruits of his unselfish labors are, when taken collectively, presented in the form of a heterogeneous mass of details. It should be recollected that it is only the larger events, the accurately grouped facts after the method of generalization to which I have referred, that go to make up the bulk of medical history and medical law. The practical results of the method of simple generalization would show clearly the final utility of medical and sanitary knowledge in the social universe and manifest its relation to everyday life. Obviously in a young republic like ours something must be allowed to propinquity—to nearness to a confusing and disordered mass of facts and phenomena.

It has been well said: "A landscape is beautiful because distance has reduced its chaos of details into order."

Those endeavoring to make a personal study of the medical and sanitary requirements of our insular possessions, more especially under new and changed conditions, can not hope to gain more than a fragmentary knowledge. Much important and accurate information touching the social, climatic and medical conditions and necessities, however, is available through the Division of Insular Affairs, in the War Department at Washington. It is clearly incumbent on the organized profession of the United States to undertake studies on a larger scale than that of individual effort. Moreover, the interrelations between tropical medicine and the sciences before alluded to, i. e., social and sanitary, is a question for the immediate future; thus step by step may we hope to erect a stairway that will lead to a new temple of knowledge.

The foundation for social order, education and a fair measure of self-government under military rule having been laid both in Porto Rico and the Philippines, there is presented to the profession of the United States an opportunity amounting to an obligation to carry into those new possessions the light of modern sanitary and medical science. The peoples of those islands are as clearly entitled to the benefits offered by our science and art as they are to those pertaining to their fundamental civil and personal rights, as guaranteed by the Constitution of the United States.

From the America that Cortez invaded until the present the most treasured resource of our nation to the physician has, in a peculiar sense, been human life, and in respect to this economic principle we are, at present writing, merely following in spirit our thoughtful forebears. The medical profession never has valued life in terms employed in denomination nor by its productive power, but rather measured it from a divine and humanitarian standpoint. Certain it is that with advancing civilization there has come a higher and higher appreciation of the value of agencies intended to promote longevity and minimize disease and suffering. And this tendency to preserve human existence, apart from sentimental considerations, is born of a principle long adhered to by the medical profession and continuously unfolding itself in the individual and in organized medical bodies. It is clear, without seeming extravagance of statement, that greater justice is done by the medical profession of America to the condition of society just pointed out than in foreign lands, since it is more thoughtful for the youth and hope of our profession. It is to the flower of that youth, with its new and hidden virtues, that we must look for disclosures in the province assigned to the higher and more complex professional bodies of the future. Modern democratic institutions, including medical schools, are in the ascending scale of civilization, infusing into our profession men who are armed with potent resources from the pedagogic world.

The present-day educational facilities and developments show an ever-increasing beneficent tendency, and the standard of qualification has passed, or is passing, beyond the stage in which there is a mere desire to acquire an elemental knowledge of disease and its treatment in this country; a new character and a new vital and moral force is happily presuming to show itself in public action for the benefit of mankind. This genius stands ready to kindle its fires and materially aid in offering the means of human welfare and the revelation of new truths.

An appreciation of this fact by professional bodies is necessary in respect of the future; for medical societies organized to obtain the highest potency must compete successfully with other societies, or they will vanish from view in the stress of social and scientific evolution.

But though the obscure rival of the Goddess of Minerva, who had broken the loom of Arachne in her jealousy, executed wonderful tasks by her unaided strength, in the process of progress towards higher efficiency the individual ceases to be a factor of first importance. The process of development, whether con-

sidered in its economic, political or purely professional relations, demands the subordination of the interests of the individual to the larger interest of the organic whole. The dominant and controlling feature underlying an infinite variety and complexity of details of that upward movement of professional and social evolution is compatible with a remarkable simplicity of governing principle. Our plain duty is accordingly to endeavor to understand the nature of that governing principle which is distinctive and characteristic in that it does not regard the interest of existing members as supreme, but is seeking to establish conditions which are favorable to the interests of a larger future.

As regards the question of the relation of medical work and progress to our social system, the time is probably ripe for a revision of certain elemental and fundamental principles and customs, although it is obvious that neither social agencies nor the general public manifest a proper comprehension of its necessity. While science is telling us about the pathologic intricacies of disease processes, their bacteriologic causation and cure with unparalleled rapidity, important social and economic questions that affect especially the comfort and health of our teeming town-bred populations are subordinated. Again, in a land of popular civil government the medical profession should be organized in a manner that would render it equal to enlarged duties which naturally should devolve on it. I refer to such matters as the control and regulation of asylums for the insane, municipal health boards and the municipal hospitals for the sick poor, for contagious diseases and the like.

Certain tendencies of modern American life, considered with reference to the welfare both of the medical profession and general public, offer a most promising field for investigation and progress. The temptations of the practical, over-strenuous life of the present and past generations have left their impress on our profession. Something, however, must be ascribed to our nervous climate, reinforced by certain elements of the American spirit-aggressiveness and an unconcealed idealism. Neither should the power of the initiative of the American, his shrewdness and his energy be overlooked. It may be doubted, however, whether there have been accomplished achievements and results commensurate with the impetuosity that characterizes all paths of professional activity. The universal spirit of haste has taken possession of our professional life; it permeates the air of the age, and the principal cause of this state of affairs is to be found in our ardent, every-day ways of living, and its cure must result from a readjustment of the home life and habits of the professional and other classes. It means a return from our present-day restlessness and rush to a quieter period, to a "Mansfield Park," with its charm of quiet village life; a return to a normal life, with natural intellectual tastes, and to calm, patient, original observation that fosters vital force and successful endeavor.

If authors and investigators were to bring forward only definitive and well-weighed pronouncements on all points at issue, it would carry us from the surface to the heart of things, and our labors would be more strongly marked by originality and power.

The spirit of undue haste which characterizes our national life is nowhere better exemplified than in American medical literature, despite its many virtues, its broad, liberal spirit and freshness. Never, in American history, whether deliberately or unconsciously, has so much current literature been placed at the disposal of physicians. Too generally medical thought and opinion, which is not of necessity medical truth, finds literary expression. The obvious weakness of it all is an enforced tendency to waste one's time in reading matter which is unapproved by common opinion. Extending this thought, it may be questioned whether to carry views and ideas beyond the domain of existing knowledge does not hinder rather than facilitate progress.

There is a list of honor among American writers, and it embraces authors whose literary product shows not only a sharp scrutiny of facts, but also the highest and most characteristic utterances in medicine. Indeed, the worth and power of American medical literature, either in its content or method, scarcely receives an unprejudiced estimate abroad.

In the field of letters we point with inordinate pride to the late Dr. Oliver Wendell Holmes, and our contemporary, Dr. S. Weir Mitchell. Fiction by medical authors lives and will live in America.

It may be questioned whether American nationalism, as evidenced by the creation of a native literature, should be the principal aim, although the consistent use of American material is to be advised and encouraged. We need to retain the conservative European spirit and keep wide ajar the door that leads to the treasures of continental literary traditions. Foreign peoples are and have been immigrating by the hundreds of thousands yearly; they have penetrated into the remotest points of this country, carrying effective training with them in many instances. Hence, admitting that the prescience of genius is the possession of many, there are fewer distinctly American medical authors than at first blush would appear.

> "The Celt is in his heart and hand,
> The Gaul is in his brain and nerve;
> Where, cosmopolitanly planned,
> He guards the Redskin's dry reserve."

Acknowledgment is due the great value and significance of the unparalleled heritage handed down by the older nations, particularly England, Germany and France. The path of fame for a nation no less than for an individual lies in the direction of constructive effort and sensitive receptiveness of the impressions and tendencies of the age irrespective of territorial limitations, and of a keen sympathy and close touch with the movements of the times in all lands.

Our literature is not an indigenous growth, yet stern of purpose; it is not, and, let us hope, never will be, sluggish in turning to foreign sources. It has, however, developed certain characteristic features, a distinct national flavor and a perfume "as plainly native as the arbutus."

American industry, with its attendant wealth and power, and the enlarged opportunities it offers to all classes of society for successful business enterprise, has quite generally proven attractive to and often filled with fervent hope the American physician, and with increasing means he has found his social position to improve.

In America the achievement of considerable financial success, however, is possible without taking high ground in a professional or ideal sense. The medical profession is integral in the effects of our economic evolution; it obtains stray glimpses of the avenue of glittering gold; but its central effort, if it desires to remain true to human perspective, contemplates a systematic development of its pecuniary, mental, moral and social powers.

The tendency to gregariousness in American cities is in no specific direction more evident than in the med-

ical profession; hence, success is and will continue to be an increasing difficult problem, a circumstance to be reckoned with, no matter what our meaning and ideals as a national profession. This portends in its last analysis the necessity of better training and equipment for every-day duties of the practitioner.

America stands in need of further reform in medical education and the immediate establishment of one authority—one licensing body; and self-created schools must place themselves in a position in which they can worthily assist in the execution of a scheme of higher national medical education. Professional ascendency in future will demand the creation of a homogeneous and adequate standard of qualification for entrance into medical schools.

The relation of social conditions to disease is a topic that is becoming more and more insistent with the reflections that are the natural accompaniment of advancing knowledge.

A backward look reveals an embryo nation steeped in an arduous task, the subjugation of a continent, at the expense of unceasing physical toil. This necessitated an open-air existence, which resulted in a vigorous, hardy race. Then followed the integration of frontier villages, of larger and smaller towns, and life meanwhile became brighter and more piquant. For long generations the abandonment of rural life, the changed habits of living, the enforced pursuit of new and less healthful callings, too often from motives of personal comfort and even social expediency, and the universal tendency to overcrowding in town populations, resulted in a modification of the character and incidence of all leading diseases. It goes without saying that respecting the effects of our social conditions and climate on disease, the particular standpoint of our fathers was radically different from that of their children. Floyd M. Crandall has recently directed forcible attention to the fact "that never have such radical changes been witnessed in the habits of life and in human diseases as those in this country during the last half century."

Fortunately, agencies are at work looking to the socialization of the American agriculturist and the amelioration of the ills due to overcrowding in large municipalities. This is a movement which in the entirety of its scope embraces numerous potent forces whose federation promises to effect in time rural social regeneration. An organized effort has in several states been already initiated, and in the conferences held and in contemplation looking to the betterment of rural life, the co-operation of the medical profession is invited. Modern agencies, as improved highways, the introduction of the telephone, trolley lines, rural mail delivery, are socializers no less than economic facilities. In addition to these physical influences, marked improvement also comes from increased educational opportunities, farm organization and the various functions of the church.

These socializing influences and forces tend to counteract the current of bygone days from the farm to the city; they likewise bid fair to become a factor of first importance in minimizing, if not actually counteracting in due season, the ill effects of over-dense urban populations. It may, however, be remarked that the impoverished classes, especially the great immigrant contingent, will be far less likely to return to a rural environment than the well-to-do, and yet it will shortly affect the social and economic conditions as well as the vital statistics of the wage-earning classes. We may confidently expect a greater physical efficiency, a higher bodily standard, though municipal sanitation will be always required, and remain the principal factor in strengthening the powers of resistance to hostile environment. One point of common agreement is that as a result of the rapid advances in sanitation and improved methods of treatment, there has been a notable decrease in prevalence and fatality of most infective diseases, particularly those more or less fostered by overcrowding (e. g., phthisis, diphtheria, diarrheal diseases, etc.). Three well-defined classes, however, have, according to the census for the decade ending May 30, 1900, distinctly increased; they are cancer, affections of the kidneys and the degenerations, fatty and fibroid. Thus during an increase in the population of 50 per cent. in the United States myocardial degenerations have increased 150 per cent. and certain types of chronic nephritis have also risen in frequency to nearly 200 per cent. The determination of the causes of this rapidly increasing frequency of these morbid states is clearly the task of the medical profession.

Respecting the degenerations—myocarditis, arteriosclerotic changes and kidney diseases—Crandall says: "The power of alcohol in the form of malt liquors to produce degenerate changes is so well known to pathologists that the conclusion is irresistible that the radical increase in these diseases comes largely from changed drinking habits."

The notable increase in these morbid conditions, however, is not due to a single cause, and substantial progress can not result from too much emphasis on any one agency whose undoubted potency remains undemonstrated.

It is probable that a more universal application of refined methods of diagnosis accounts in a measure at least for the apparent disparity in the number of cases of nephritis and myocardial degeneration in recent times as compared with the showing of older statistics.

The census between 1890 and 1900 indicates an increasing prevalence of two additional diseases, in respect to both of which progress in our knowledge has been slow and never encouraging. I refer to diabetes mellitus and lobar pneumonia. The census previously referred to indicates that chronic diabetes mellitus has nearly doubled in point of frequency in a single decade.

While we shall continue to look to the bacteriologic laboratory for the discovery of the definitive cause of this metabolic ailment, and to the pathologist for a mind's-eye picture of the morbid state of the tissues, the data obtainable from an investigation of the manner and habits of life, which exert more or less etiologic influence, are of intrinsic medical importance and would serve as accessory factors in diagnosis as well as straws for the application of measures for treatment.

Although impossible to recognize a boundary line between the "variables of health" and disease in chronic diabetes mellitus, it can not be doubted that abnormalities of the glycolytic functions of the liver and pancreas, associated with inappreciable structural changes (more especially in the cells forming the islands of Langerhans) which interfere with proteid metabolism and the metabolic disturbances, are dependent in large measure on the overuse of the mind, intemperance and irregular habits of body; in a word, on improper modes of living.

Physiology has contributed much to the intricate processes involved in the nutritional diseases. Morbid physiology (general pathology) is most intimately bound up with the modes and predilections of American life, particularly of the so-called privileged classes.

TABLE 1.

No.	Age.	Sex.	Nationality.	Accompanying Circulatory Lesions.	Accompanying Renal Lesions.
1	54	Male.	German.	Absent.	Absent.
2	56	Male.	Irish.	Absent.	Acute diffuse nephritis.
3	66	Female.	Irish.	Chronic endocarditis, mitral and aortic.	Chronic interstitial nephritis.
4	35	Male.	American.	Hypertrophy with dilatation.	Chronic interstitial nephritis.
5	68	Male.	American.	Hypertrophy with dilatation.	Absent.
6	63	Male.	American.	Mild carditis with dilatation.	Chronic interstitial nephritis.
7	11 m	Male.	American.	Mild carditis with dilatation.	Acute nephritis.
8	82	Male.	Not given.	Chronic endocarditis.	Fatty kidneys.
9	56	Male.	American.	Mitral reg.	Absent.
10	36	Male.	American.	Chronic endocarditis.	Acute parenchymatous nephritis.
11	60	Male.	American.	Arterial sclerosis.	Interstitial nephritis.
12	50	Male.	Italian.	Acute endocarditis (vegetative).	Interstitial nephritis.
13	43	Male.	American.	Hypertrophy, left ventrical.	Chronic interstitial nephritis.
14	50	Male.	Italian.	Acute endocarditis (vegetative).	Chronic nephritis.
15	67	Male.	Not given.	Beginning endocarditis.	Slight chronic nephritis.
16	87	Female.	Scotch.	Hypertrophic arterial sclerosis.	Chronic diffuse nephritis.
17	36	Male.	Italian.	Dilatation.	Chronic diffuse nephritis.
18	27	Female.	American.	Dilatation.	Acute parenchymatous nephritis.
19	24	Male.	Austrian.	Dilatation.	Acute parenchymatous nephritis.
20	20	Female.	Irish.	Chronic endocarditis.	Chronic interstitial nephritis.
21	58	Female.	American.	Gen. atheroma.	Chronic interstitial nephritis.
22	57	Male.	East Indies.	Pericarditis, chronic.	Chronic interstitial nephritis.
23	47	Female.	Irish.	Acute pericarditis.	Chronic interstitial nephritis.
24	46	Male.	American.	Fib. pericarditis.	Chronic interstitial nephritis.
25	27	Male.	American.	Fib. pericarditis.	Chronic interstitial nephritis.
26	47	Female.	German.	Absent.	Parenchymatous nephritis.
27	39	Male.	Irish.	Acute pericarditis.	Chronic parenchymatous.
28	50	Male.	Irish.	Acute pericarditis.	Absent.
29	26	Male.	Italian.	Pericarditis.	Absent.
30	60	Male.	Irish.	Pericarditis, diffuse.	Absent.
31	34	Male.	American.	Mild carditis, chronic.	Absent.
32	70	Female.	Irish.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
33	78	Male.	American.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
34	34	Male.	Italian.	Hypertrophy and dilatation.	Tuberculosis of kidneys.
35	19	Male.	Italian.	Pericardial effusion.	Cloudy swelling.
36	19	Male.	American.	Acute endocarditis.	Acute nephritis.
37	51	Female.	American.	Acute endocarditis.	Acute nephritis.
38	62	Male.	Irish.	Atheroma coronary arteries.	Diffuse nephritis.
39	69	Male.	American.	Arterial sclerosis.	Absent.
40	62	Male.	Irish.	Arterial sclerosis.	Chronic nephritis.
41	74	Male.	Irish.	Hypertrophy and dilatation.	Chronic diffuse nephritis.
42	55	Male.	Not given.	Aortic endocarditis.	Chronic interstitial nephritis.
43	82	Male.	American.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
44	45	Female.	English.	Chronic pericarditis.	Absent.
45	49	Female.	American.	Chronic pericarditis.	Chronic B. disease.
46	62	Female.	American.	Brown atrophy.	Absent.
47	22	Male.	Not given.	Brown atrophy.	Chronic diffuse nephritis.
48	60	Female.	Irish.	Chronic endocarditis.	Chronic diffuse nephritis.
49	27	Male.	Scotch.	Chronic pericarditis.	Absent.
50	63	Male.	Irish.	Arterial sclerosis.	Chronic nephritis.
51	73	Male.	English.	Mitral reg.	Chronic interstitial nephritis.
52	50	Male.	American.	Chronic endocarditis.	Absent.
53	56	Male.	American.	Endocarditis and myocarditis.	Atrophy left kidney.
54	73	Male.	English.	Endocarditis and myocarditis.	Chronic diffuse nephritis.
55	51	Male.	American.	Aortic endocarditis. Chronic pericarditis.	Parenchymatous degeneration.
56	38	Male.	American.	Aortic endocarditis. Acute pericarditis.	Cloudy swelling.
57	77	Male.	Not given.	Mitral reg.	Chronic diffuse nephritis.
58	68	Female.	Irish.	Arterial sclerosis.	Chronic nephritis.
59	45	Male.	Irish.	Acute Fib. pericarditis.	Parenchymatous degeneration.
60	58	Female.	Irish.	Chronic endocarditis.	Chronic diffuse nephritis.
61	17 m	Female.	American.	Chronic endocarditis.	Absent.
62	54	Female.	Irish.	Brown atrophy and aortic stenosis.	Chronic interstitial nephritis.
63	53	Male.	American.	Dilatation and hypertrophy.	Chronic parenchymatous nephritis.
64	66	Female.	Irish.	Chronic mild carditis.	Chronic interstitial nephritis.
65	53	Male.	Not given.	Chronic mild carditis.	Parenchymatous nephritis.
66	24	Male.	American.	Chronic mild carditis.	Slight chronic nephritis.
67	26	Male.	Chinese.	Chronic mild carditis.	Cloudy swelling.
68	49	Male.	Irish.	Mitral reg. and mild carditis.	
69	23	Female.	American.	Mitral reg.	Fatty acute parenchymatous.
70	71	Female.	Not given.	Chronic endocarditis. Arterial sclerosis.	Small w. kidney.
71	47	Male.	American.	Chronic endocarditis. Arterial sclerosis.	Cloudy swelling of kidney.
72	41	Male.	American.	Endocarditis, chronic.	Cloudy swelling.
73	74	Female.	Irish.	Endocarditis, chronic.	Chronic diffuse nephritis.
74	83	Male.	German.	Endocarditis, chronic.	Chronic interstitial nephritis.
75	47	Female.	German.	Mitral reg. and fatty degeneration.	Chronic parenchymatous nephritis.
76	65	Female.	Irish.	Acute endocarditis.	Sclerotic kidney.
77	67	Male.	English.	Acute endocarditis.	Absent.
78	46	Male.	American.	Cardiac hypertrophy and dilatation.	Parenchymatous nephritis.
79	34	Female.	American.	Cardiac hypertrophy and dilatation.	Chronic interstitial nephritis.
80	26	Male.	American.	Mitral reg.	Parenchymatous nephritis.
81	67	Female.	German.	General atheroma.	Parenchymatous nephritis.
82	24	Male.	American.	Chronic pericarditis and endocarditis.	Parenchymatous degeneration.
83	2	Female.	American.	Chronic pericarditis and endocarditis.	Absent.
84	56	Female.	Irish.	General atheroma.	Sclerotic kidney.
85	16	Female.	American.	Chronic endocarditis.	Chronic interstitial nephritis.
86	55	Male.	Norwegian.	Endocarditis.	Acute nephritis.
87	50	Male.	Irish.	Mitral reg. and aortic stenosis.	Acute nephritis.
88	57	Male.	American.	Mitral reg. and aortic stenosis.	Sclerosis of kidney.
89	72	Male.	German.	Cardiac hypertrophy.	Chronic parenchymatous nephritis.
90	70	Female.	Irish.	Arterial sclerosis.	Chronic parenchymatous nephritis.
91	85	Female.	Not given.	Ulcerative endocarditis.	Chronic nephritis.
92	45	Male.	American.	Endocarditis, chronic.	Chronic nephritis.
93	53	Male.	American.	Endocarditis, chronic.	Cloudy swelling.
94	64	Female.	Irish.	Arterial sclerosis.	Cloudy swelling.
95	14	Female.	American.	Cardiac dilatation.	Acute nephritis.
96	72	Female.	Irish.	Chronic endocarditis.	Parenchymatous nephritis.
97	79	Female.	German.	Arterial sclerosis.	Chronic nephritis.
98	58	Male.	American.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
99	60	Female.	American.	Beginning pericarditis.	Congestive.
100	53	Male.	Not given.	Chronic endocarditis.	Congestive.
101	49	Male.	Hungarian.	Dilatation, heart.	Congestive.
102	58	Male.	American.	Atheroma of aorta.	Congestive.
103	81	Male.	Irish.	Acute pericarditis.	Chronic parenchymatous nephritis.
104	53	Male.	American.	Acute pericarditis.	Chronic parenchymatous nephritis.
105	32	Male.	American.	Acute pericarditis.	Chronic parenchymatous nephritis.
106	34	Male.	American.	Acute pericarditis.	Parenchymatous nephritis.
107	31	Male.	American.	.....	Parenchymatous nephritis.
108	50	Male.	Irish.	Acute pericarditis.	Parenchymatous nephritis.

TABLE I.—CONTINUED.

No.	Age.	Sex.	Nationality.	Accompanying Circulatory Lesions.	Accompanying Renal Lesions.
109	71	Male.	Swiss.	General atheroma.	Chronic interstitial nephritis.
110	63	Male.	Irish.	General atheroma.	Chronic interstitial nephritis.
111	73	Male.	Irish.	Mitral reg.	Chronic interstitial nephritis.
112	40	Male.	American.	Mitral reg.	Chronic interstitial nephritis.
113	55	Female.	Irish.	General atheroma.	Chronic interstitial nephritis.
114	19	Female.	American.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
115	62	Male.	American.	Hypertrophy and dilatation.	Beginning inter. change.
116	65	Female.	English.	Arterial sclerosis.	Chronic nephritis.
117	60	Male.	American.	Fibrinous pericarditis.	Cloudy swelling.
118	62	Female.	American.	Mitral disease.	Interstitial nephritis.
119	43	Male.	American.	Cardiac hypertrophy.	Chronic diffuse nephritis.
120	47	Female.	American.	Sero-fib. pericarditis.	Acute diffuse nephritis.
121	62	Male.	American.	Cardiac hypertrophy.	Chronic interstitial nephritis.
122	37	Male.	American.	Hypertrophy and mitral lesion.	Chronic diffuse nephritis.
123	62	Male.	Irish.	Mitral and aortic disease.	Chronic interstitial nephritis.
124	42	Male.	American.	Hypertrophy and arterial sclerosis.	Chronic interstitial nephritis.
125	81	Female.	American.	General arterial sclerosis and hypertrophy.	Chronic interstitial nephritis.
126	64	Male.	Irish.	Endocarditis and pseudocarditis.	Chronic interstitial nephritis.
127	56	Female.	Irish.	Mitral disease.	Chronic diffuse nephritis.
128	19	Male.	German.	Mitral valvulitis.	Acute parenchymatous nephritis.
129	46	Female.	American.	Pericarditis and endocarditis.	Chronic interstitial nephritis.
130	36	Male.	American.	Pericarditis and endocarditis.	Chronic parenchymatous nephritis.
131	45	Male.	Irish.	Pericarditis and endocarditis.	Chronic interstitial nephritis.
132	55	Female.	American.	Aortic stenosis.	Chronic parenchymatous nephritis.
133	41	Female.	American.	Aortic stenosis.	Beginning parenchymatous nephritis.
134	40	Male.	American.	Chronic pericarditis.	Chronic interstitial nephritis.
135	23	Male.	American.	Chronic pericarditis.	Chronic interstitial nephritis.
136	28	Female.	American.	Chronic endocarditis.	Parenchymatous chronic nephritis.
137	60	Male.	American.	Fatty degeneration.	Parenchymatous chronic nephritis.
138	48	Male.	American.	Acute pericarditis.	Chronic interstitial nephritis.
139	37	Male.	American.	Atheroma of aorta.	Slight parenchymatous nephritis.
140	79	Male.	American.	Atheroma of aorta.	Abscess of kidney.
141	50	Female.	American.	Hypertrophy and dilatation.	Interstitial nephritis.
142	71	Male.	Irish.	Hypertrophy and dilatation.	Stone in left kidney.
143	27	Male.	Russian.	Mitral disease.	Chronic diffuse nephritis.
144	34	Male.	American.	Acute endocarditis.	Chronic diffuse nephritis.
145	53	Male.	American.	Acute endocarditis.	Large pale kidney.
146	61	Male.	American.	Mitral stenosis.	Large pale kidney.
147	54	Male.	Not given.	Beginning endocarditis.	Parenchymatous nephritis.
148	59	Male.	Irish.	Fatty degeneration.	Parenchymatous nephritis.
149	36	Male.	American.	Dilated right heart.	Cloudy swelling.
150	14	Male.	American.	Chronic pericarditis.	Congested kidney.
151	43	Male.	German.	Hypertrophy and mitral reg.	Multiple cysts.
152	19	Male.	American.	Hypertrophy and mitral reg.	Cloudy swelling.
153	31	Male.	German.	Hypertrophy and mitral reg.	Cloudy swelling.
154	75	Male.	American.	Hypertrophy and mitral reg.	Chronic interstitial nephritis.
155	64	Male.	Irish.	Chronic endocarditis.	Chronic interstitial nephritis.
156	41	Male.	Irish.	Chronic endocarditis.	Cloudy swelling.
157	53	Male.	Scotch.	Mild carditis.	Interstitial chronic nephritis.
158	21	Female.	American.	Endocarditis.	Interstitial chronic nephritis.
159	63	Female.	Not given.	Aortic endocarditis.	Parenchymatous nephritis, chronic.
160	36	Male.	American.	Fatty degeneration.	Chronic parenchymatous nephritis.
161	70	Male.	Italian.	Fatty degeneration.	Chronic interstitial nephritis.
162	38	Male.	Scotch.	Fatty degeneration.	Chronic parenchymatous nephritis.
163	38	Male.	American.	Chronic endocarditis.	Large white kidney.
164	55	Male.	Irish.	Mitral reg.	Chronic interstitial nephritis.
165	61	Male.	Irish.	Chronic pericarditis.	Chronic interstitial nephritis.
166	50	Female.	American.	General atheroma.	Chronic interstitial nephritis.
167	31	Male.	American.	General atheroma.	Chronic parenchymatous nephritis.
168	29	Male.	American.	Chronic endocarditis.	Cloudy swelling.
169	26	Male.	Irish.	Acute pericarditis.	Fatty degeneration.
170	28	Female.	Irish.	Acute pericarditis.	Cloudy swelling.
171	62	Male.	German.	Mitral lesion.	Chronic interstitial nephritis.
172	78	Male.	Irish.	Cardiac hypertrophy.	Chronic interstitial nephritis.
173	53	Male.	American.	Chronic endocarditis.	Chronic nephritis.
174	26	Female.	Not given.	Chronic endocarditis.	Chronic nephritis.
175	76	Female.	German.	Mitral and aortic.	Chronic interstitial nephritis.
176	47	Male.	American.	Acute pericarditis.	Chronic nephritis.
177	54	Female.	Irish.	Mitral and aortic lesion. General atheroma.	Chronic diffuse nephritis.
178	50	Male.	Not given.	Chronic endocarditis.	Chronic interstitial nephritis.
179	59	.....	American.	Acute fibrinous pericarditis and endocarditis.	Chronic diffuse nephritis.
180	27	Male.	American.	Ulcerative endocarditis.	Fatty degeneration.
181	70	Male.	American.	Arterial sclerosis.	Acute nephritis.
182	43	Male.	Not given.	Chronic pericarditis.	Chronic interstitial nephritis.
183	37	Male.	English.	Chronic pericarditis.	Chronic interstitial nephritis.
184	45	Male.	German.	Pericardial effusion.	Fatty kidney.
185	52	Male.	American.	Cardiac hypertrophy.	Chronic parenchymatous nephritis.
186	73	Male.	German.	Myocarditis.	Chronic interstitial nephritis.
187	52	Male.	American.	Myocarditis.	Chronic interstitial nephritis.
188	23	Female.	American.	Myocarditis.	Chronic interstitial nephritis.
189	67	Male.	Irish.	Myocarditis atheroma.	Fatty degeneration.
190	40	Male.	German.	Fatty heart.	Acute nephritis.
191	53	Male.	Irish.	Fatty heart.	Interstitial nephritis.
192	46	Female.	Irish.	Fatty heart.	Fatty kidney.
193	52	Male.	American.	Chronic myocarditis.	Chronic interstitial nephritis.
194	26	Female.	Scotch.	Fatty heart.	Subacute parenchymatous nephritis.
195	39	Male.	American.	Hypertrophy.	Chronic interstitial nephritis.
196	60	Female.	Hungarian.	Endocarditis, mitral.	Chronic parenchymatous nephritis.
197	50	Female.	Irish.	Arteriosclerosis.	Diffuse nephritis.
198	38	Male.	American.	Arteriosclerosis.	Slight parenchymatous nephritis.
199	38	Male.	American.	Chronic pericarditis.	Slight parenchymatous nephritis.
200	39	Female.	American.	Brown atrophy.	Gran. kidney.
201	38	Male.	American.	Cardiac hypertrophy.	Interstitial nephritis.
202	53	Male.	German.	Sclerosis, mitral and aortic balms.	Interstitial nephritis.
203	51	Male.	Irish.	Hypertrophy and fatty degeneration.	Chronic parenchymatous nephritis.
204	75	Female.	Irish.	Chronic endocarditis.	Slight interstitial nephritis.
205	67	Female.	Irish.	Hypertrophy, left ventricle.	Chronic interstitial nephritis.
206	65	Female.	American.	.....	Interstitial nephritis.
207	3 m	Male.	American.	.....	Gran. kidney.
208	70	Male.	German.	Old valvulitis.	Chronic interstitial nephritis.
209	45	Male.	American.	Aneurism arch aorta.	Chronic interstitial nephritis.
210	6 m	Female.	American.	Aneurism arch aorta.	Chronic interstitial nephritis.
211	2	Female.	American.	Aneurism arch aorta.	Interstitial nephritis.
212	47	Male.	American.	Aneurism arch aorta.	Chronic interstitial nephritis.
213	85	Male.	Not given.	Endocarditis with calcification.	
214	29	Male.	American.	Endocarditis with calcification.	Chronic interstitial nephritis.
215	49	Male.	American.	Sclerosis, mitral.	
216	56	Male.	American.	Sclerosis, mitral.	Parenchymatous nephritis.

TABLE 1.—CONTINUED.

No.	Age.	Sex.	Nationality.	Accompanying Circulatory Lesions.	Accompanying Renal Lesions.
218	18	Male.	American.	Sclerosis, mitral.	Parenchymatous nephritis.
219	68	Male.	German.	Endocarditis.	Interstitial nephritis.
220	72	Male.	Irish.	Endocarditis, mitral.	Interstitial nephritis.
221	63	Male.	Irish.	Sclerotic valvulitis.	Interstitial nephritis.
222	46	Male.	American.	Chronic valvula H. D.	Chronic parenchymatous nephritis.
223	68	Male.	Irish.	Myocarditis.	Parenchymatous nephritis.
224	42	Male.	American.	Atheroma aorta.	Parenchymatous nephritis.
225	52	Male.	American.	General atheroma.	Absent.
226	54	Male.	German.	Cardiac hypertrophy with dilatation.	Swollen and mottled.
227	60	Male.	Irish.	Cardiac hypertrophy with dilatation.	Acute nephritis.
228	42	Female.	Scotch.	Chronic pericarditis.	Pyonephrosis.
229	40	Male.	American.	Chronic pericarditis.	Acute diffuse nephritis.
230	40	Male.	American.	Chronic pericarditis.	Chronic parenchymatous nephritis.
231	32	Male.	American.	Chronic endocarditis.	Absent.
232	2	Male.	American.	Chronic endocarditis.	Fatty degeneration.
233	76	Female.	Irish.	Hypertrophy and dilatation.	Chronic diffuse nephritis.
234	50	Female.	American.	Hypertrophy and dilatation.	Chronic diffuse nephritis.
235	61	Female.	German.	Cardiac hypertrophy.	Fatty degeneration.
236	32	Female.	Austrian.	Mitral reg.	Small contracted kidney.
237	57	Female.	American.	Arterial sclerosis.	Chronic interstitial nephritis.
238	75	Male.	English.	Mitral reg. and hypertrophy.	Contracted kidney.
239	19	Male.	American.	Arterial sclerosis.	Acute parenchymatous nephritis.
240	70	Female.	English.	Aortic sclerosis.	Chronic interstitial nephritis.
241	54	Female.	Irish.	Aortic stenosis.	Chronic interstitial nephritis.
242	59	Female.	American.	Mitral aortic reg.	Chronic diffuse nephritis.
243	50	Female.	German.	Hypertrophy and dilatation.	Chronic interstitial nephritis.
244	50	Male.	American.	Mitral reg.	Chronic interstitial nephritis.
245	74	Male.	German.	Hypertrophy, aortic stenosis.	Acute hemorrhagic.
246	71	Male.	American.	Arterial sclerosis. Mitral reg.	Chronic diffuse nephritis.
247	52	Male.	American.	Chronic endocarditis.	Chronic interstitial nephritis.
248	32	Male.	Irish.	Chronic endocarditis.	Chronic diffuse nephritis.
249	19	Male.	Italian.	Chronic endocarditis.	Chronic diffuse nephritis.
250	52	Female.	American.	Hypertrophy, dilatation, arterial sclerosis.	Acute diffuse nephritis.
251	39	Male.	American.	Hypertrophy with arterial sclerosis.	Acute diffuse nephritis.
252	58	Male.	English.	Cardiac hypertrophy and endocarditis.	Cloudy swelling.
253	28	Female.	German.	Aortic atheroma.	Interstitial nephritis.
254	21	Male.	American.	Hypertrophy and dilatation.	Parenchymatous changes.
255	70	Female.	American.	Acute mild carditis.	Chronic interstitial nephritis.
256	41	Male.	Italian.	Acute mild carditis.	Acute parenchymatous nephritis.
257	76	Male.	Italian.	Acute mild carditis.	Acute parenchymatous nephritis.
258	55	Male.	English.	Slight atheroma.	Chronic interstitial nephritis.
259	17	Male.	Italian.	Slight atheroma.	Acute parenchymatous nephritis.
260	20	Male.	American.	Slight atheroma.	Acute parenchymatous nephritis.
261	54	Male.	English.	Slight atheroma.	Acute nephritis.
262	36	Male.	American.	Acute pericarditis.	Acute nephritis.
263	46	Male.	American.	Cardiac dilatation.	Chronic nephritis.
264	65	Female.	Irish.	Cardiac hypertrophy.	Interstitial nephritis.
265	43	Male.	English.	Pericarditis and arterial sclerosis.	Interstitial nephritis.
266	60	Female.	Irish.	Mitral endocarditis.	Interstitial nephritis.
267	81	Female.	Irish.	Valvular endocarditis.	Interstitial nephritis.
268	26	Male.	American.	Hydro pericardium.	Subacute nephritis.
269	70	Female.	American.	General atheroma.	Chronic interstitial nephritis.
270	43	Male.	American.	Endocarditis, mitral and aortic.	Chronic interstitial nephritis.
271	69	Female.	Irish.	Endocarditis, mitral and aortic.	Acute parenchymatous nephritis.
272	46	Male.	American.	Endocarditis, mitral and aortic.	Cloudy swelling.
273	1	Male.	American.	Acute endocarditis.	Cloudy swelling.
274	67	Male.	German.	Chronic endocarditis.	Acute nephritis.
275	40	Male.	American.	Chronic endocarditis.	Chronic interstitial nephritis.

Diseases and conditions that are successfully treated by a correction of the mode of life are apt to be regarded as functional in nature, when, in reality, definite although undiscoverable structural lesions already exist, the foundation of an insidious and progressive disease already laid.

Now it is conceivable that a broader application of data as yielded by vital statistics would render more clearly recognizable the terrible significance of an enlightened public, living in idle acquiescence to positively injurious prevailing customs. A federation of forces, however, in connection with the investigation of special diseases even, is necessary to make this branch of inquiry productive of really important information; for example, the co-operation of committees on vital statistics with the creation of centers under the auspices of a national organization, such as the American Medical Association, would prove effective. I would instance lobar pneumonia, which, as before stated, is increasing in prevalence, as a disease in which the light of future investigation after this method of research would prove preliminary to important discoveries and decisions. Indeed, the local diversity in social conditions and climate in different sections which are far separated by geographical distances in this country, renders such a procedure an absolute necessity. The statistical data gathered by individuals, notable those of E. F. Wells, are of real value, and one point approximately settled is that the death rate by decades during eighty years is practically unaltered—"certainly not decreasing." The census for the decade between 1890 and 1900 shows an increased prevalence of this disease from 186 to 191 per 100,000.

A marked numerical increase in the number of cases of pneumonia has taken place since the advent of epidemic influenza,[1] but this does not account for the slowly rising incidence of the disease during previous non-epidemic seasons. Other reasons have been given for the augmenting prevalence of pneumonia: increased facilities for travel and the tendency for people to congregate (Wells), the highly infectious character of the disease and the neglect of prophylactic measures in crowded centers (Walsh). Among accessory causes of the increased prevalence of pneumonia may be mentioned a change in the prevailing meteorologic conditions. As shown elsewhere the wanton destruction of the native forests has been attended with an exaggeration in the range of variability of such meteorologic conditions as temperature and humidity. It has been long known and universally recognized that this disease bears a vital relation to the seasons, and that the greatest morbidity coincides with the most pronounced climatic changes. It is probable that the increased incidence of the disease will be shown to be dependent in part on augmenting prevalence of visceral degenerations, particularly of the cardio-vascular system and the kidneys. Be it remem-

bered that in a large measure these are the direct or indirect result of an era characterized by undue devotion to business, social excesses and club life, with its attendant unseemly hours and unconcealed conviviality. It must be confessed that the extent to which lobar pneumonia is dependent on these degenerations acting as predisposing factors is imperfectly known, but it can not be doubted that a conservative attitude toward the question accords to them a prominent position among the agencies unfavorably affecting the prognosis, as shown by Table 1.

This table comprises all necropsied cases of lobar pneumonia at the Philadelphia Hospital for a period of 6 years, from Jan. 1, 1896, to March 1, 1903.[2] Out of a total of 275 cases, 250, or about 90.9 per cent., showed cardio-vascular lesions, principally chronic endocarditis and general atheroma of the vessels. A small number of the cases, 14, or 5 per cent., showed acute plastic pericarditis, and 11, or 4 per cent., chronic pericarditis. Renal lesions were recognized in 90.5 per cent. of the totality of cases. Chronic interstitial nephritis was noted in 145, or 52.7 per cent.; chronic parenchymatous nephritis in 50, or 18 per cent., and acute nephritis in 38, or 13.8 per cent. Among the remaining 25 cases was one of renal calculus, another of renal tuberculosis, and in many of the remainder subacute nephritis was noted.

These figures afford strong presumptive evidence that renal and cardiovascular degeneration rank as potent predisposing conditions, and clear and convincing proof that they bear a close and vital relation to the high mortality rate of lobar pneumonia. It should be stated that the patients admitted into the Philadelphia Hospital belong to the pauper element of society and the subjects are principally adults.

The reports of the health departments of leading cities, in particular that of New York, furnish valuable data from which important tentative influences may be drawn, but sure ground can result only from research work of a broader character than has yet been undertaken in this country. From the record of vital statistics of Philadelphia and New York I have compiled two tables (*vide infra* tables No. 2 and 3), which show that pneumonia is more or less limited to centers, and these correspond in the main to the most densely populated areas, with their allied conditions of squalor and poverty.

Pneumonia, like other acute infections that prevail epidemically, shows a wave-like character, on comparing different years for the same locality. Exclusive of epidemic outbreaks there is an evident tendency to a preponderating incidence in overcrowded districts, and among the impoverished classes. Thus the average mortality rate for four years in New York (*vide* Table 2), taking the eight wards which are most densely populated, from the tabular list is 18 per cent.

The fourth, sixth, seventh, tenth, eleventh, thirteenth, fourteenth and seventeenth wards of New York City were embraced in this estimation. In contrast with the figures just given, eight wards representing the most sparsely settled portions of the city of New York (e. g., first, fifth, eighth, ninth, fifteenth, sixteenth, eighteenth and nineteenth) gave for the same period of four years an average mortality of 14.3 per cent.[3] It was observed in the compilation of these mortality statistics that an elimination of the epidemic periods would make the differences in percentage dependent on the population somewhat greater.

In arranging the statistics for Philadelphia I have included only those wards in which the inhabitants were equally distributed throughout the entire ward. Per contra, wards having large area and a low population, per acre, but this population located in certain sections of the ward only, have not been included. Thus the following wards became available for the purpose of contrasting those giving the highest with others showing the lowest mortality: First, second, third, fourth, fifth, sixth, seventh, ninth, tenth, eleventh, twelfth, thirteenth, fourteenth, fifteenth, sixteenth, seventeenth, eighteenth,

TABLE II.

Ward.	Area in Acres.	Population U. S. Census of 1900.	Population per Acre.	Percentage of Deaths from Pneumonia.			
				1899	1900	1901	1902
First	154	9,516	62	11.2	11.8	10.9	12.1
Second	81	1,488	18	2.9	9.1	11.5	7.1
Third	95	1,797	19	10.3	9.6	12.9	10.5
Fourth	83	19,554	222	20.4	22.8	18.0	20.1
Fifth	168	8,298	49	12.1	15.3	15.5	12.6
Sixth	86	20,004	266	18.8	18.0	15.8	20.4
Seventh	198	89,237	451	16.9	17.5	16.0	17.1
Eighth	183	29,059	159	15.4	16.9	15.0	19.0
Ninth	322	59,650	185	13.1	15.3	13.4	12.9
Tenth	110	71,879	638	18.1	15.8	15.5	16.9
Eleventh	106	99,144	443	18.2	18.4	17.4	18.0
Twelfth	5,504	476,602	86	12.8	15.2	12.7	14.4
Thirteenth	107	64,117	550	21.6	23.7	18.3	21.3
Fourteenth	96	34,035	332	18.2	20.7	22.4	20.1
Fifteenth	198	24,066	122	14.1	21.4	14.0	18.6
Sixteenth	349	52,808	123	12.1	13.2	11.1	12.3
Seventeenth	331	130,796	395	13.8	17.3	13.7	17.2
Eighteenth	450	61,325	163	11.2	13.2	10.8	12.2
Nineteenth	1,481	257,448	174	12.0	16.7	14.4	11.4
Twentieth	444	89,798	202	13.7	13.0	12.3	11.9
Twenty-first	411	60,211	147	12.9	16.4	12.9	13.6
Twenty-second	1,529	189,261	124	13.7	14.5	12.0	12.8
Average percentage.				13.9	16.0	13.8	14.4

TABLE III.

Ward.	Area in Acres.	Population for 1900.	Population per Acre.	Percentage of Deaths from Pneumonia.		
				1899.	1900.	1901.
First	448.0	37,919	85.0	8.92	12.93	10.16
Second	282.8	35,206	128.0	14.10	17.75	14.52
Third	122.2	24,693	202.0	14.46	17.93	17.80
Fourth	146.6	22,562	154.0	11.37	16.69	18.09
Fifth	215.4	16,868	78.0	10.46	11.20	9.90
Sixth	215.4	8,042	37.0	9.86	10.57	13.12
Seventh	281.0	28,137	100.0	13.10	13.92	13.05
Eighth	278.4	15,757	55.0	10.21	17.25	9.65
Ninth	256.0	6,953	27.0	6.21	11.90	8.64
Tenth	229.8	19,967	86.0	8.47	10.84	12.29
Eleventh	134.4	11,843	88.0	13.89	10.46	8.00
Twelfth	113.5	13,850	122.0	7.79	10.75	7.42
Thirteenth	165.8	17,427	105.0	6.61	15.69	7.75
Fourteenth	151.7	19,403	121.0	7.51	10.61	8.04
Fifteenth	771.4	50,379	65.0	12.59	12.73	10.14
Sixteenth	179.8	15,788	88.0	7.82	8.74	11.29
Seventeenth	160.6	17,908	111.0	9.80	10.09	12.09
Eighteenth	416.0	29,643	71.0	10.29	11.18	9.56
Nineteenth	446.7	55,246	121.0	10.63	13.61	9.66
Twentieth	469.8	43,276	92.0	8.33	11.15	11.79
Twenty-first	4,562.6	32,168	6.0	10.28	13.71	10.96
Twenty-second	12,738.6	64,832	4.0	8.97	12.39	10.76
Twenty-third	2,051.2	26,109	12.0	10.56	8.61	10.50
Twenty-fourth	2,656.0	53,023	20.0	7.37	8.70	10.93
Twenty-fifth	2,640.6	51,723	20.0	12.53	12.97	11.56
Twenty-sixth	896.0	45,615	51.0	10.63	12.96	10.45
Twenty-seventh	2,308.2	28,004	12.0	*	*	*
Twenty-eighth	655.4	43,931	67.0	8.10	7.82	10.33
Twenty-ninth	896.0	60,096	67.0	13.49	11.11	9.71
Thirtieth	332.2	28,874	87.0	9.32	12.79	10.86
Thirty-first	456.3	33,139	73.0	10.07	11.61	10.90
Thirty-second	517.8	39,889	77.0	9.76	9.47	9.11
Thirty-third	2,844.2	65,372	23.0	10.27	12.86	11.64
Thirty-fourth	3,568.0	43,706	12.0	10.63	12.46	9.01
Thirty-fifth	21,287.0	8,614	0.4	7.25	9.86	10.37
Thirty-sixth	3,891.8	46,811	12.0	10.28	13.43	11.93
Thirty-seventh	332.8	22,445	67.0	12.80	11.03	13.12
Thirty-eighth	255.4	33,104	128.0	9.21	9.29	9.47
Thirty-ninth	3,077.8	40,377	13.0	10.59	11.75	11.87
Fortieth	5,177.0	19,438	4.0	6.68	9.42	10.09
Forty-first	400.0	11,328	28.0	.....	7.69	4.87

* Population and deaths occurring in Almshouse (Twenty-seventh Ward) do not appear in this table. Deaths in Almshouse, 1,637.

Forty-one (41) per cent. of deaths from pneumonia occurred after the age of 40 years.

nineteenth, twentieth, twenty-eighth, twenty-ninth, thirtieth, thirty-first, thirty-second and thirty-seventh.[4] The eighth ward was not included on account of being inhabited principally by a better-to-do class and on account of containing the Pennsylvania Hospital, the former condition lessening the liability of pneumonia, while the latter institution named would tend to increase the mortality from this disease since many of its patients come from the third, fourth, fifth and sixth wards. The portion of the city west of the Schuylkill River was excluded from this computation for similar reasons.

Out of the 25 wards included in our figures I have estimated a percentage of deaths from those showing the most dense population per acre, allowing for the location of hospitals, homes, etc. (e. g., second, third, fourth, seventh, thirteenth, seventeenth and nineteenth wards), and I find the percentage of deaths from pneumonia to be 12.8 per cent. Those wards showing less dense population, the first, ninth, tenth, sixteenth, twenty-eighth and thirty-second, gave an average of 9.5 per cent.

The second, third and fourth wards were occupied largely by foreigners (Italians, Russians) and showed the highest percentage of deaths from pneumonia, while the seventh ward, which contains a large colored population, also shows a very high death rate.[5]

As shown by MacDougall's statistics, unfavorable occupational conditions probably have less effect in causing pneumonia than phthisis. In my own investigations it was observed that divisions of Philadelphia having an industrial population modestly though comfortably housed furnished a death rate but little in excess of that of the sections inhabited by the well-to-do. The whole subject of occupational diseases, eminently important to the medical world, is closely united with the social and economic conditions of the wage-earning classes, but its consideration here would lead me too far a-field.

REFERENCES.

1. Phila. Hospital Reports, vol. 14, p. 57, 1896, by the writer.

2. For permission to examine and employ the records of this hospital, the writer is indebted to Dr. J. V. Shoemaker, president of the Board of Charities and Corrections.

3. The writer desires to acknowledge, with thanks, the kind aid of Dr. William H. Guilfoy, registrar Department of Health, N. Y., in furnishing data for the above table.

4. The following wards have not been included in the estimation of the lowest percentages for the following reasons: The Twelfth Ward, while it shows a low population per acre (86), has a number of hospitals and homes which contribute largely towards its high death rate from pneumonia. The Second and Third Wards show a population of 18 and 19 per acre; there are but few children under 5 years and few aged persons living in these wards, and this lessens the mortality from pneumonia. The Twenty-first and Twenty-second wards, because they are occupied mostly by the well-to-do classes. The Fifteenth, while it has been included in my calculation, contains a large colored, Italian and French population.

5. My acknowledgments are here due to Dr. L. Napoleon Boston for assistance rendered in connection with the statistics gathered in Philadelphia.

Eye Affections in Egypt.—Baudry, professor of opthalmology at Lille, on his recent visit to the Egyptian Medical Congress, made a special study of the endemic eye affections, for which the country is notorious. He reports in the "Nord Méd." of January 15 that the ocular lesions there are the same as elsewhere and that there is no special morbid entity peculiar to the country. The famous Egyptian ophthalmia is merely trachoma complicated by a catarrhal or purulent condition of the conjunctivæ, and does not differ from such conditions anywhere. The climatic and hygienic conditions of the country explain the prevalence of eye affections and the frequency of contagion. Some ideas of hygiene have already percolated among the masses and the number of cases of trachoma has materially diminished of late years.

Preliminary Note.

DIAGNOSTIC VALUE OF BLOOD PRESSURE DETERMINATIONS IN THE DIAGNOSIS OF TYPHOID PERFORATION.

GEORGE W. CRILE, M.D.
CLEVELAND, OHIO.

The highest systolic pressure in uncomplicated cases, and with normal arteries, as measured by a Riva-Rocci sphygmomanometer in 115 cases of typhoid, was 138 mm. mercury; the lowest, 74 mm.; the mean in the first week was 115; the second, 106; the third, 102; the fourth, 96; the fifth, 98.

In 20 cases of acute peritonitis, recorded by the same observer with the same instrument in otherwise similar cases, the highest systolic pressure was 208 mm. mercury; the lowest, 156; the mean, 166 mm. The mean pressure of all the typhoid was 104 mm.

In 5 cases diagnosed typhoid perforation, in which blood pressure determinations were made, 4 were verified either by operation or autopsy. The case not operated on was a typical one. The pressure rose from 116 mm. to 190 mm. during four hours. The second case, a lad of 12, was admitted to Lakeside Hospital in general peritonitis. Blood pressure was 105; Widal reaction was positive. Immediate operation was performed and a perforation found. Later the abdominal symptoms of peritonitis disappeared. The blood pressure fell to 80 mm. On the eighth day infection passed through the thinned wall of another ulcer, causing peritonitis; blood pressure then rose promptly from 84 mm. to 110 mm.

In the third case, a patient in the ward at Lakeside, developed a slowly forming perforation, blood pressure rose from 116 mm. to 165 within two hours. The pulse in the meantime had but slightly increased. At operation a small perforation and diffuse peritonitis were found.

The fourth case, that of a physician who entered Lakeside with general peritonitis, blood pressure was 165; no operation. Autopsy revealed perforation and diffuse peritonitis.

The fifth case was one of typical perforation, blood pressure 208 mm. At operation perforation and diffuse peritonitis were found.

The blood pressure in the perforation cases assumed the high level attending peritonitis from other causes.

The Lay Press as Physicians' Censors.

A new method of restraining the physician who is anxious for newspaper fame has been discovered. The Indian Territory Press Association, in session at Muscogee April 25, discussed the proposition of excluding from their newspapers the names of physicians who consider it contrary to the ethics of the profession to advertise and pay for the same, but who are willing or desirous of having their names mentioned in connection with operations, interesting cases, etc. We regret to learn that the resolution to take this action was finally voted down, having, however, excited a warm dispute. The Indian Territory Press Association is on the right track; the measure ought to pass, not only there, but elsewhere. The press has here far more power than the medical societies can exert. Such a measure would relieve from temptation many an erring physician and from anxiety many a grieved observer.

THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION

103 Dearborn Avenue . . . . . Chicago, Ill.

Cable Address . . . "Medic, Chicago"

Subscription price . . . . . Five dollars per annum in advance

SATURDAY, MAY 9, 1903.

THE INVESTIGATING FORCE AT THE ROCKEFELLER INSTITUTE.

In a previous number of THE JOURNAL we ventured to comment on the drawings of plans for the buildings projected by the Rockefeller Institute for Medical Research. Of much greater importance, however, for the success of the institute is the policy which will be adopted in the selection of the investigative force which will work there. Mistakes with regard to the construction of buildings would be deplorable; serious errors in judgment in the choice of the men who are to undertake the scientific research of the institution, or in the organization of the staff, might prove fatal to its welfare. In this connection there are one or two points to which we desire to call attention.

We approve, and we believe that there is general approval, of the choice of a scientific director made by the board of directors. Dr. Flexner seems to us to be the logical man for the place. But we shall be, and we believe others will be, deeply interested in the method which is followed in the appointment of the investigating force as a whole.

Either one of two plans may be adopted. It may be decided that the institute shall be developed as a unit centering in the personality of the scientific director, whose province it will be to determine the problems to be undertaken and the methods by which their solution is to be approached; in this event the members of the staff would consist of a group of men, skilled in diverse directions, whose functions it would be to follow the leadership of the director, at least in a general way. This is the kind of organization that obtains, so far as we can learn, in the Institute for Experimental Therapy in Frankfort, over which Paul Ehrlich presides with success. The other plan which might be chosen would be that in which the scientific director, with the sanction of the board, selects a number of eminent men, each to have autonomous charge of a department of work in the institute, say one in physiologic chemistry, one in physiologic physics, one in experimental therapy, one in experimental surgery, one in the field of enzymes, etc., the scientific director to have charge of one of the departments himself and to stand in much the same relation to the men in charge of the other departments that the president of a modern university stands to the heads of departments in the university. This second plan of organization corresponds in the main to that adopted in the Pasteur Institute in Paris.

While each of the two modes of organization may lead to successful results, it appears to us that the second possesses many advantages over the first. For, in the first plan, it might be exceedingly difficult for the director to secure appointees who would approach the level of his own mental caliber; there would be danger that the staff would be made up, very largely at any rate, of assistant natures, lacking in power of original thought and initiative; indeed, the success of this plan would be in large part dependent on the willingness of the staff to faithfully carry out the ideas and instructions of the director and to stifle their own tendencies to tangential excursions and suppress their own ideas regarding the overcoming of obstacles when these were opposed to the director's plans. Conditions such as these, while important and desirable for the aspiring scientist in his period of pupillage, are insufferable when that period has been passed. The second plan, on the other hand, permits of a much broader development, and it is, of course, the much more costly plan of the two. Here each head of a department may be a man of mental powers equivalent to or in many ways even superior to those of the director; the research along each of various lines may be guided by an expert; younger men undertaking investigations may begin under conditions of pupillage and be gradually led into positions of ever-increasing independence; the occupants of the higher positions have all the advantages of companionship and consultation with their colleagues of allied subjects with none of the restraints or limitations which a rigid monarchial organization imposes. The scientific director must, it is true, in this instance, be a man of large personality, of wide sympathies, above petty jealousies, and more interested in the advance of medical science than anxious for the recognition and forwarding of his own reputation. It is only this kind of a man who is not afraid to have strong men near him.

It seems probable that the Rockefeller Institute for Medical Research will not be compelled, for financial reasons, to adopt any mode of development other than the best. THE JOURNAL hopes that when a decision regarding details of organization has been reached it will be found that a scheme has been devised which will bring together an active group of skilled investigators and which will combine all the advantages of concentrated effort with the greatest possible opportunity for individual freedom of thought and experimentation.

REMARKABLE PROPERTIES OF RADIUM.

Though only discovered in 1898, the new metal, radium, bids fair to set the physical-chemical world agog. The prospect of securing energy for nothing has stimulated the imagination of a certain number of human beings from time immemorial, but the nearest approach to the mythical "perpetual motion" thus far made would seem to be that presented by the phenomena manifested by radium and its salts. It was startling enough to be told that radium can give out light continuously

without exciting cause; that it can emit rays, some of which are identical with cathode rays, thus representing showers of electrons, while other rays are very penetrating and can pass through solids as do *x*-rays, and still others which are easily absorbed; that it can act on sensitized plates; that it has the capacity to cause air to conduct electricity; that its rays can kill the *Bacillus prodigiosus;* and that an emanation from it that behaves like a gas, can make bodies submitted to its influence temporarily active like itself.

These facts were, by themselves, sufficiently marvelous, but two French observers, Curie and Laborde, have just added to the list of "radium miracles" by having brought the demonstration that salts of radium emit heat continuously and to a measurable extent. The heat given off is relatively a very large quantity. Only minute quantities of radium are available for experimentation, but it is estimated from the actual measurements made that one gram of this substance would emit 100 small calories of heat per hour.

The source of the heat as well as that of the other forms of energy given out by radium is entirely obscure. It is not explicable by any recognizable chemical action, and so it must be assumed that it is due to some change in the atom itself. Physicists will be most unwilling to accept the statement that radium can melt more than its own weight of ice per hour and yet undergo no change in potency. The laws of conservation of energy, the principles of thermodynamics, have hitherto been thought to be unassailable, but the manifestations of radium have led some to think it possible that they, too, must yield to the eternal flux of opinion.

But little wonder, in view of the reports of the scientists before us, that the uncontrolled imagination of the newspaper scribbler should see in radium the inexhaustible illuminant of the future, and a substitute for anthracite which will be independent of the difficulties incident to the struggles between capital and labor. The newspaper reporter's reckonings are, however, without knowledge of the conditions under which radium is, and is likely to be, obtainable; it would appear that it exists in extremely minute quantities in even very large masses of a rare raw material, and that thus far probably not more than a teaspoonful has been obtained in the whole world, and this at the cost of many thousands of dollars.

A comparison of its effects on tissues with those produced by the *x*-ray would be of exceptional interest. Up to the present time we have at least the observation that a small quantity of it, carried in a bottle in the waistcoat pocket, burned holes into the flesh in six hours; the superficial necrosis produced resulted in sores that required several weeks to heal.

CONDENSED MILK AND INFANT MORTALITY.

The causes of infant mortality are always living questions with the medical profession. Why so much incipient human life is destined to be an early failure is one of the most important problems that confronts us. Many of the reasons for this are obvious, but there are still factors that escape us, either from defective observation or because of peculiar difficulties of their detection. What is required more perhaps than anything is a reliable, complete and uniform system of reporting vital statistics so that we can have the exact facts for which we must account. With this desideratum a careful study of environmental and other conditions and a comparison of the findings in different localities showing different morbidity and mortality ratios could hardly fail to be instructive.

An interesting investigation of the sort by Dr. Louis C. Ager appears in the *Brooklyn Medical Journal* for February. Dr. Ager compares the infant mortality statistics of the various boroughs of Greater New York, but more especially those of Brooklyn and Manhattan, and finds that while the deaths from diarrheal diseases in children under 5 years has been more than cut in two, the improvement has been of late much more marked in Manhattan than in Brooklyn and the adjoining counties of Queens and Richmond. Brooklyn has been in the past called the city of homes, and its earlier health statistics were decidedly more favorable than those of old New York, certain portions of which are probably among the most densely populated areas in the world. Now, however, the more rural the region the worse the conditions in Greater New York. Thus, while in New York county (Manhattan borough) the diarrheal mortality in 1900 was 170 per 100,000 population, in Kings County it was 209, in Queens County 216, and in Richmond County 228. Dr. Ager finds three principal causes for Brooklyn's greater mortality, the first, unsanitary tenements, which is being remedied to a considerable extent; second, unsanitary streets and lots, and third, and on this he seems to lay most stress, the greater prevalence of feeding with condensed milk, as compared with Manhattan or New York City proper as generally understood. He finds a striking difference in the methods of artificial feeding of infants in the two boroughs. Sixty per cent. of the infant diarrheal mortality in Brooklyn is in children fed with condensed milk as against 27 per cent. in New York. His paper is, in fact, a striking showing of the advantages of natural milk feeding as revealed by the mortality figures of these two boroughs. Good natural milk can be obtained from reliable dealers—not necessarily certified milk, the cost of which is prohibitive to most tenement house dwellers—but fairly good milk which can be made safer by pasteurization at times when most subject to contamination. Popular education on this point has done much, he states, in Manhattan, and the same good results can be brought about elsewhere if pains are taken by the medical profession to this end.

It seems probable that similar conditions and contrasts exist elsewhere than in Brooklyn and Manhattan, and that studies similar to that of Dr Ager might bring out facts leading to useful generalizations.

THE SO-CALLED "KOCH LUNG CURE" FRAUDS.

The magazine *Physical Culture* has published a very interesting expose of the different so-called Koch lung-cure institutes and sanitaria, which are pretending to be connected with the famous Berlin scientist. The exposure is certainly a complete one and should go a long way to prevent this sort of quackery and imposition on the public. This magazine, while we can not endorse it in all of its contents, is doing excellent work in this particular and we hope that it will keep on and do still more. There is a large field for this kind of work and they seem to have the author in Mr. Gerald Keating, who knows how to do it well.

DEFEAT OF EDDYISM IN PENNSYLVANIA.

Sometime since, as the readers of THE JOURNAL are aware, a charter was refused to the Eddyite organization in Philadelphia by a Pennsylvania judge on the ground that it was a corporation for profit and against public policy. The case has been carried to the Supreme Court and a decision just received. The findings of the lower court are confirmed. The Supreme Court holds that the state regulates the practice of medicine and requires certain qualifications in its practitioners. While faith and prayer may be of use, common sense as well as public policy demands that other measures be taken in certain cases. The decision fixes the status, or rather the non-status of Eddyism in Pennsylvania; as a healing cult it has no standing whatever, for which fact the citizens of that commonwealth are to be congratulated.

THE W. C. T. U. AND PATENT MEDICINES.

We have occasionally seen in our contemporaries criticisms of the W. C. T. U. for not fighting the drink evil along the line of patent medicines. The charges have been made that leaders of the said body have been induced to endorse for popular use some strongly alcoholic preparations, alleged to be of a medicinal nature. In a recent communication to the *Dietetic and Hygienic Gazette* for May, Mrs. Martha M. Allen, who has charge of the W. C. T. U. work in this particular line, shows that they have not been inactive in this particular, but have carefully obtained official analyses of large numbers of patent medicines and distributed pamphlets and books exposing them to such an extent that they have been threatened with legal proceedings on the part of the manufacturers. These threats, of course, were futile, in view of the fact that the analyses given were made by state officers and published as such. In 1898 the Woman's Christian Temperance Union, with the assistance of the editors of several high-grade pharmaceutical journals, issued a pamphlet entitled "The Dangers and Harmfulness of Patent Medicines," thousands of copies of which were distributed. The work is still being continued along this line. It is not surprising that unsuspecting reformers should sometimes be misled to give their names to what they would not with full knowledge have endorsed, and we can not accuse them of anything more than a lack of consideration. It is simply a matter of unsuspicious ignorance. This is the reason why we have so many clergymen and other good people endorsing patent medicines, and we believe that no one would be more sorry than they for any evil they may have thus unwittingly aided. The question might be asked whether we as physicians always do our duty in regard to informing patients who may be misled as to these nostrums. It is satisfactory, however, to know that an organization which has been charged with neglecting this matter has by no means been guilty of such negligence, but has been an active factor in the publication of the dangers of alcoholic patent medicine dosing.

ANOTHER GOVERNOR'S VETO.

Some time ago we had occasion to notice what seemed to us a very poorly advised veto of a medical practice act by the then governor of Colorado, and we commented rather plainly on the reasons given in the veto message. They have changed governors in Colorado since that time, but unfortunately the precedent seems to have been set that is slavishly followed. The last medical act which recently passed the house and senate and was supported by the medical profession in the state has also been vetoed by the governor. It was not a radical measure; in some respects we think it might have been better by having been made more radical, but it seemed to be altogether too much so for the administration. The governor's ideas on the subject are rather curious. He remarks that reliable statistics show that the death rate of Colorado is as low as it ever has been, therefore medical matters are just where they ought to be and the proposed law was useless and likely to make things worse. He says, guided by the late experience of similar legislation in other states, the conclusion is irresistible that "all such legislation has a tendency to restrict the citizen in the employment of whomsoever he pleases in the treatment of his diseases," and goes on further to say that it will build up a medical trust made up of certain schools, to the exclusion of others equally meritorious, including among the latter, we presume, faith healers, osteopaths, Dowieites, Eddyites, *et id omne genus*. The statistical method of showing the expense to a community from evil is a popular one, and we wish that some one would get up the statistics of the money spent in Colorado on this class of practitioners, especially adding the amount given to itinerant frauds who go through the country and rob the innocent and confiding public of the state. We believe a true statement of things would be a little appalling to the governor who is so fond of letting the individual employ whomsoever he pleases unrestricted. The Colorado contributions to quacks, frauds and pretenders thus favored by the governor will, we presume, go on and grow until the time may come when a little common sense will penetrate the executive cranium and allow a reasonable medical practice act to go into force. There are just as good arguments in favor of the itinerant gambler, if every citizen has a right to lose his money in the way he pleases, as there are in favor of the irregulars championed by the governor of Colorado. The common sense to be found in the message of Governor Wells of Utah,[1] accompanying his veto of the osteopathic bill, is in happy contrast.

1. THE JOURNAL A. M. A., April 25, p. 1156.

VACCINATION AND SMALLPOX.

As was told in THE JOURNAL last week, in our special telegraphic report from Boston, the etiology of smallpox is now known through the work of Drs. W. T. Councilman, Geo. B. McGrath and W. R. Brinckenhoff. It is a sporozoon first suggested by Guarnieri as the cause of variola and named by him *Cytoryctes vaccinia*. On Monday evening, at another large meeting of medical men, at the Boston Medical Library (soon to be the Academy of Medicine), Dr. E. E. Tyzzer described his elaborate work on the organism of vaccinia, performed during the spring and summer of last year. Experiments were made by inoculating rabbits' corneas with vaccine virus and with the contents of the pustules of variola. Microphotographs showed every stage of the asexual cycle of *Cytoryctes vaccinia* in the cases in which virus was inoculated, the sporozoa appearing in sixteen hours in the epithelial cells, and every cell containing them by the end of the third day. Dr. Tyzzer, like Dr. Councilman, is sure that the organism of the two diseases, vaccinia and variola, is identical, the two results differing for the reasons described above. This elaborate research brought to so successful a result appears as a model of no little significance for those who would accomplish results of real scientific worth. It illustrates, as few recent discoveries illustrate, the benefit to be derived from systematic and co-ordinated endeavor, under the guidance of a wisdom which is always more than mere learning. Several factors combined to the result. First, there was an epidemic of smallpox; second, a city board of health, imbued with the true scientific spirit, gave the widest possible privilege and opportunity for the collection of pathologic material; third, an adequate directing mind; fourth, a number of younger men who knew neither fatigue nor fear in pursuit of the common good; fifth, adequate financial means, and sixth, pervading all, the tireless energy which kept and which still keeps, for future further gains, the research up in all its laborious and infinite detail. These fruitful elements should be present to-day in every large city of the land—disease, a board of health, some earnest medical scientists, money from some one of the great funds now available and the energy of discovery. Combining these factors, why should not some other unsolved problems be compelled to give up their hidden solutions?

Medical News.

ILLINOIS.

Chicago.

Personal.—Dr. Albert H. Hoy and family have returned from California.——Dr. Frederick Mueller gave a dinner, April 28, in honor of Dr. Adolf Lorenz.

Heavy April Mortality.—During April 2,628 deaths were reported, equivalent to an annual death rate of 16.96 per 1,000. Not since the year following the great fire has there been such a prevalence of the graver diseases.

Women Want Hospital.—At the meeting of the alumnæ of the Woman's Medical College it was proposed by Dr. Mary Coons that a hospital for women, to cost $500,000, be erected near Jackson Park. A committee of five was appointed to report on a plan for the enterprise.

Deaths of the Week.—During the week ended May 2, 637 deaths were reported, an annual mortality per 1,000 of 17.62. Pneumonia again heads the list with 107 deaths; consumption comes next with 65; violence and heart disease follow, each with 39. Nervous diseases caused 38 deaths; measles 28, whooping cough 5, scarlet fever 4 and smallpox 2.

How Not to Lose Diphtheria Patients.—The department of health, in its latest bulletin, makes the following statements regarding diphtheria:

> There are numerous physicians who treat yearly a large number of diphtheria cases who have not lost a patient from this disease for years. Their inflexible rule is to take a culture at the first visit and to administer antitoxin at once when the diphtheria bacilli are found.
>
> For a physician to treat a patient with an acute inflammation of the throat for days without a microscopic examination is little short of criminal neglect. The essentials in the treatment of diphtheria are an early diagnosis and the prompt administration of antitoxin. Physicians who are prepared in these essentials are seldom called on to give a death certificate.

The Captain of the Men of Death.—Under this title the department of health characterizes pneumonia:

> Pneumonia remains as the opprobrium of the medical profession. Its treatment, notwithstanding more than one vaunted antipneumococcic serum, is as unsatisfactory as ever, while its increasing ravages make all other acute infectious diseases relatively insignificant.
>
> The commissioner calls attention to the fact that of the total of 2,628 deaths in April, 604 were caused by pneumonia and only 283 by tuberculosis. This is an excess of 113.4 per cent. of pneumonia deaths over consumption deaths, and, while the deaths from consumption have increased 30.4 per cent. in actual numbers over those of April, 1902, the deaths from pneumonia have increased 41.1 per cent. this April over last.

The department repeats its warning to physicians and those in charge of the sick, urging the combating of the spread of the disease by cleanliness, ventilation, etc.

MARYLAND.

Baltimore Vital Statistics.—Two new cases of smallpox were reported last week and 36 of diphtheria. Among the deaths consumption led with 34, pneumonia and Bright's disease following with 16 each.

Medical Banquets.—The annual banquet of the Alumni Association of the College of Physicians and Surgeons was held April 27. Prof. William Royal Stokes was toastmaster. The menu was written in prescription form, the courses being all in Latin.——The sixth annual banquet of the Baltimore County Medical Association will be held in Baltimore, May 13.

Personal.—Dr. Norman M. Harris, associate professor of bacteriology in the Johns Hopkins Medical School, Baltimore, has accepted the position of first assistant in bacteriology at the University of Chicago.——Dr. George Warner Miltenberger, Baltimore, has recovered from the operation done on him several weeks ago at the Union Protestant Infirmary.——Dr. Frank Oldham Miller has completed his term as resident physician in Bay View Asylum, Baltimore, and is now settled in practice at Uniontown.

P. and S. Commencement.—At the commencement of the College of Physicians and Surgeons, Baltimore, April 30, 76 out of 79 candidates for the degree received diplomas. The first gold medal was awarded to Dr. Samuel T. Darling, Maryland; the second to Dr. T. J. Cummings, New Jersey; the third to Dr. F. W. A. Mayer, New Jersey, and the fourth to Dr. W. S. Evans, Utah. The following received honorable mention: Drs. George E. Merrick, Pa.; Frank H. Cutler, Utah; George L. Fawcett, Ala.; A. W. Deal, Pa.; T. J. Brothers, Ala., and E. H. Cohoon, Nova Scotia. Appointments were announced as follows: Dr. L. J. Owen, resident physician, City Hospital, with Dr. Z. P. Henry, and S. L. Page, associates, and Drs. W. S. Evans, A. W. Deal, A. C. Biddle, Major M. Allen, and C. W. Lurking, assistants. Dr. T. J. Cummings was made assistant to Dr. N. G. Keirle of the Pasteur Institute, and Dr. Samuel T. Darling was appointed resident pathologist. Drs. Wright S. Sudler, A. Ferdinand Ries and George F. Sargent were appointed resident physicians at Bay View Asylum. Drs. C. G. Laslie and J. Plumer Cole were appointed resident physicians at the Maternité Hospital.

MASSACHUSETTS.

War Against Mosquitoes.—The mosquito war is on in Brookline, where $1,000 will be expended this year in "petrolizing" pools, catch-basins, etc. Worcester will spend $3,000 and Fairhaven $300 for the same purpose.

Smallpox in Adams.—An advanced case of smallpox was discovered at Adams, May 1, and the 650 children in the public schools were promptly vaccinated, as the patient had undoubtedly exposed a number of children living in the house.

Marathon Racers' Hearts.—The eight physicians who examined the Marathon runners before and after their twenty-

mile race, April 19, have reported no unusual findings except that the two cases of severe exhaustion noted were due to the unwise use of alcohol.

Hospitals Benefit.—By the will of John W. Shapleigh of Brookline, the Free Hospital for Women, the New England Deaconesses' Home and Training School Hospital will largely benefit, the amount being a proportionate part of a trust fund left to his wife and daughter.

Personal.—Prof. O. T. Wadsworth has resigned the chair of ophthalmology at Harvard Medical School.——Arthur I. Kendall, Ph.D., will work, as fellow of the Rockefeller Institute for Medical Research, this summer on the Boston Floating Hospital, under the supervision of Dr. Simon Flexner, in his study of the Shiga bacillus and the serum treatment of infantile diarrhea.

For a Control of Tuberculosis.—Thirty-five hundred cases of tuberculosis reported to the board of health of Boston in the last three years has aroused the public interest, and the Boston Association for the Relief and Control of Tuberculosis has been formed, with Dr. Edward O. Otis, president; Dr. Arthur K. Stone, vice-president; Miss Alice L. Higgins, secretary; George S. Mumford, treasurer, and a strong executive committee. The organization seeks to educate the people in treatment and in prophylaxis.

More of Councilman.—The Medical Library meeting of May 4 was a fuller exposition of the studies of Dr. Councilman and his associates of smallpox. Dr. Ralph L. Thompson presented a full statement of his new methods for determining the bacteriolytic complement content of the blood serum, which he has most carefully worked out in variola in his research, under the auspices of the Rockefeller Institute. This is undoubtedly a great step forward in the revelation of an index of the vitality of a patient and, hence, the progress of his disease. Dr. E. E. Tyzzer told of his studies of vaccinia, and Dr. William I. Councilman again demonstrated and described his discovery, the protozoon of smallpox.

NEW JERSEY.

Physician Wins Suit.—The case of Hiram J. Shoemaker against Dr. Henry W. Elmer, Bridgeton, for alleged wrongful treatment of an injured shoulder, was decided in favor of the defendant.

Osteopath Bill Fails of Passage.—A bill to establish a board of examiners in osteopathy who would have power to examine and license persons to practice osteopathy in the state, met the determined opposition of the legislative committee of the Medical Society of New Jersey, and was strangled in the senate committee.

The Legislature's Good Record.—The legislature which has just adjourned has left a good record behind it in general and, so far as medical legislation, has done particularly well. A bill was passed granting $200,000 to the State Sanatorium for Tuberculosis, a site for which has already been secured in Hunterdon County. The erection of the buildings will be pushed with all possible dispatch, under the architectural direction of George B. Post of New York City.

New Requirements for Medical Licenses.—The State Board of Medical Examiners announce that after July 4 the following changes in the requirements for a New Jersey license will go into effect:

1. The date of examination will be the third Tuesday and Wednesday in June and October.

2. The academic requirements will be a certificate or diploma, issued after four years of study, either in a normal, manual training or high school of the first grade, in this state, or in a legally constituted academy, seminary or institute of equal grade, or a student's certificate of examination for admission to the freshman class of a reputable literary college or an academic education considered and accepted by the state superintendent of public instruction as fully equivalent.

3. The medical requirements will be four full school years of medical study, of at least nine months each, including four satisfactory courses of lectures of at least seven months, in four different calendar years, in a legally incorporated medical college or colleges, prior to receiving the degree of doctor of medicine.

NEW YORK.

Insane Hospital Improvements.—The bill introduced by Mr. Rogers, appropriating $1,070,000 for improvements to the state hospitals for the insane, has been passed by the legislature.

Filtration Plant Completed.—The filtration plant for the water supply of Cornell campus at Ithaca is completed and the water was turned into the main. This is the plant for which Andrew Carnegie has paid.

Presentation to Dr. Knight.—On the occasion of his seventieth birthday anniversary, Dr. Charles Calvin Knight invited the members of the medical staff of the Peekskill Hospital and their wives to dine with him. His guests surprised Dr. Knight by presenting him with a magnificent silver punch bowl and ladle.

For Consumptive Camp.—The assembly, on April 21, failed to pass the Goodsell-Bedell bill, requiring the consent of county and town authorities for a camp for consumptives. The bill, while of a general nature, was intended to prevent the establishment of a hospital camp for New York City consumptives at Central Valley, Orange County.

Lectures to State Alienists.—Dr. Adolf Meyer, director of the Pathological Institute of the New York State Hospitals on Ward's Island, has finished the third course of instruction to the physicians of the fourteen state hospitals. These three courses of lectures and clinics have been given by himself and his assistants at Ward's Island during the past winter. In all, 61 physicians belonging to the staffs of the state hospitals at Buffalo, Utica, Gowanda, Middletown, Rochester, Ogdensburg, Poughkeepsie, Brooklyn, Central Islip, Kings Park, Matteawan, Dannemora and New York City have been in attendance.

Application Against Raybrook Denied.—The attorney general has refused to order proceedings to declare void the purchase of the lands at Raybrook, Essex County, as a site for a state consumption hospital. The basis of the opposition to the purchase is that it is contrary to the constitution, which provides that forest preserve lands shall be forever kept as a wild forest. The attorney general holds that the power to locate the institution involved a decision by the governor and that the constitution did not prohibit the location of the hospital on the lands in question and that the selection of the site, being an executive function, the courts would not presume to review its correctness.

New York City.

Bequests to Hospitals.—By the will of Adolphi Openhym, $5,000 is left to the Mount Sinai Hospital and $5,000 to the Montefiore Home for Chronic Invalids.

No quarantine against Cuba will be enforced unless yellow fever appears at Cuban ports. This announcement has already been made as regards Florida and Louisiana.

Awarded Fifteen Per Cent.—In the suit for $25,250 brought by Dr. John B. Acken against the estate of the late William R. Clarkson, the jury returned a verdict for $400.

Found Guilty of Manslaughter.—Convicted by a jury of being responsible for the death last September of Miss Agnes Lynch, Dr. Henry C. Hibbe, a physio-medical practitioner, was found guilty of manslaughter in the first degree, April 18. A sentence of twenty years' imprisonment may be imposed.

Buffalo.

Commencement.—The medical department of the University of Buffalo held its fifty-seventh annual commencement May 6. Degrees were conferred on 40. The alumni association held its annual meeting on the same day, at which the classes of '53, '63, '73, '83 and '93 held reunions. At the afternoon session Dr. William T. Sedgwick, professor of sanitary science in the Massachusetts Institute of Technology, Boston, presented the subject of protection of the public health by the filtration of water supplies, illustrated by stereopticon. A banquet was held at the Iroquois in the evening.

Personal.—Dr. William G. Taylor has been appointed to the medical staff in the children's department of the St. Mary's Infant Asylum.——Dr. William C. Krauss has been reappointed a member of the board of visitation for the Buffalo State Hospital.——Dr. Montgomery A. Crockett, who has been at Pinehurst convalescing from a severe illness, has returned to Buffalo and resumed his practice.——Drs. Hibbert Roberts, Edwin A. Riesenfeld, W. S. Goodale and Albert J. Harris have been appointed resident physicians at the German Hospital.——Dr. F. J. Carr will spend several months in Europe.——Dr. William J. Bissell, major of the Seventy-fourth regiment, and Dr. Frederick Busch, of the Sixty-fifth regiment, have been appointed medical officers of the New York State Provisional regiment, which escorted Governor Odell to the dedicatory exercises of the Louisiana Purchase Exposition at St. Louis.

GENERAL.

Professor Hans Kehr, the famous surgeon of Halberstadt, Germany, has come to the United States, it is said, at the

invitation of the American Surgical Society, to visit American clinics and hospitals and to hold a number of clinics.

Pan-American Congress in 1905.—The International Executive of the Pan-American Medical Congress has accepted the proposal of the Argentine Republic to hold the Fourth Pan-American Congress in Buenos Ayres in 1905, instead of 1903, as had been announced in their invitation of February, 1901.

Mikulicz in Chicago and Elsewhere.—Prof. J. von Mikulicz, while in Chicago, attended some of the meetings of the Illinois State Medical Society. He was tendered a banquet on Wednesday evening by the Chicago Surgical Society, at which there were present nearly one hundred. He said that he appreciated the extraordinary kindness and courtesy extended to him so lavishly by the profession in America and that he could not help admiring the great skill of the American surgeon of the present time and the prominent part he takes in the advancement of our art. He said that Drs. Murphy, Keen, Allen, Halstead and Richardson represent the type of the American surgeon who rank as leaders and pioneers in scientific research and progressive surgery. It is to be hoped that medical science and the advancement of the surgical art will reap the rich harvests which must follow a close union, good understanding and earnest co-operation among such men as these and the English and German surgeons. On April 30 he operated in the amphitheater of Mercy Hospital on a case of incomplete inguinal hernia in a man of 32, and also on a young woman for cholelithiasis. In the evening a reception was given in his honor by Dr. and Mrs. John B. Murphy. He went to Rochester to see the Mayos operate and to New Orleans to attend the session of the American Medical Association.

CANADA.

Smallpox in Winnipeg.—During the past winter Winnipeg has been almost free from smallpox, there having been but four cases, all of which came from the south of the boundary line. This has been a very fortunate winter for that city in this respect, as the disease was quite prevalent throughout the province of Manitoba. Prompt action on the part of the medical health officer in isolating cases and keeping them in strict quarantine has produced these good results.

Ontario Hospital for Epileptics.—The Ontario government will erect a hospital for epileptics at Woodstock, and has appropriated $30,000 for it. The insane in Ontario are classified as harmless (such as epileptics, which number 1,000), curable and incurable. All three classes will in time be kept in separate buildings. The buildings at Woodstock will be constructed on the detached principle. It is expected that the initial buildings will be completed by the end of 1904.

Darcy Island Leper Station, B.C.—After years of agitation on the part of the city council of Victoria, B.C., the dominion government has passed an order-in-council, which provides that the lazaretto will pass entirely from the hands of Victoria and will come under the jurisdiction of the provincial government of British Columbia. The order further provides that before the British Columbia government gets its share of the Chinese capitation tax, they shall pay over to the various cities in the province affected the amounts which they have expended in maintaining the lepers on the island. At the present time there are but three patients at the station, to whom weekly visits are paid by an inspector and quarterly visitations by the health officials of Victoria.

The Insane of British Columbia.—Dr. Manchester, the medical superintendent of the British Columbia Insane Asylum, has issued his report for the past official year. The year began with 284 patients in residence and 8 on probation. During the year 121 were admitted, 95 of these being males and 26 females. The increase in admissions over the previous year was 6. The discharges numbered 61 and the deaths 26, which figures are almost identical with those of the previous year. The year closed with 311 in residence and 16 on probation. Comparing the insane in British Columbia with those in the other provinces, it is found that the total official insane in Canada is 16,495, or 3.1 to the 1,000 of population. Manitoba has 565; New Brunswick, 1,054; Nova Scotia, 1,392; Ontario, 7,511; Prince Edward Island, 351; Quebec, 5,245.

Medical Students Graduate.—The graduating class of the Manitoba Medical College this year numbers 22, and the examinations are to be held May 11 to 25. The faculty have been eminently pleased with the past session as the attendance has been the largest in the history of the institution. A new building will be erected. With the great growth taking place in Manitoba and the Northwest Territories, the authorities see a great future ahead of this medical college.——The annual conferring of medical degrees at Bishop's Medical College, Montreal, took place April 24. Dr. F. W. Campbell, dean of the faculty, stated that the past session was the most successful in the history of the institution, the freshmen class being the largest that had ever entered the college, numbering 32. Dr. W. W. Kelly delivered the valedictory.

Amendment to British Columbia Medical Act.—A delegation of medical practitioners in British Columbia recently interviewed the premier with regard to an amendment to the medical act which is now before the legislature of that province. Apparently this amendment is the outcome of the recent medico-legal case with which the medical council would have nothing to do and whose action was upheld by judicial authority. It was pointed out by the medical men that if the present amendment were adopted by the house, any trifling complaint would have to be heard by the medical council, and that the amendment should be altered in such a way as to only permit of legitimate grievances being considered. The doctors suggested that the complainant should first make an application to a supreme or county court judge, and it would be for the judge to determine on the evidence submitted whether the complaint was of sufficient gravity to be the subject of investigation by the medical council. The premier considered that these representations were reasonable, and stated that they would likely be adopted by the house.

Medical Council Complications.—The medical faculty of the University of Toronto has called attention to recent developments, which they think may prejudice the course of medical education in this province of Ontario. It is now well known that Dr. Roddick, after years of persistent effort, secured at the last session of the dominion parliament, the passage of the Canada Medical Act, which provided for a Dominion medical council, to hold examinations in medicine and grant licenses to practice in any portion of the dominion. This council can, however, be constituted only when all the provinces of Canada have accepted the provisions of the act. Since the act was passed all the provinces but Quebec have expressed their acceptance. Although the College of Physicians and Surgeons of Quebec did not sanction the introduction of any ratification legislation in the Quebec legislature, it was nevertheless introduced, with the result that it was defeated by a very large majority of that house. The explanation for this action is that the medical profession in that province and one of the universities were unable to accept the act as it stands. This influenced the action of the legislature. One of the recent developments referred to is the agitation which has arisen in the lower province for amendments to the act. The Montreal Medical Society favors inter-provincial registration, without the intervention of a Dominion Medical Council, or, if such reciprocity could not be brought about, federal legislation in the way of an amendment to the Roddick act. The difficulty seems to lie in the fact that one of the universities of Quebec desires to extend over the whole dominion its prerogatives which at present are confined to that province, that is, to give the holder of a Quebec University degree in medicine the right, without further examination, to practice anywhere in the dominion. Such an amendment can not be accepted in Ontario; and the whole question must be thrashed out again at the various meetings of the medical societies until an understanding is reached.

FOREIGN.

Ecuador's sanitary improvements, it is reported, are to cost $2,500,000 and will better the port of Guayaquil.

Mazatlan's new hospital, to replace the lazaretto burned to destroy any possible remaining plague infection, will be a modern one, well equipped.

Copenhagen Prize.—The university gold medal for 1901-1902 was awarded to Dr. Einar Hall for the best work on the inflammation of the nerves induced by malignant neoplasms.

St. George's Hospital May Move.—St. George's Hospital, London, is on Piccadilly and Hyde Park, a very valuable frontage, whose sale, it is stated, would provide funds to buy ample grounds elsewhere and to erect a new hospital and a new medical school building. The proposition is under consideration.

Charlatan's Ads.—The Magdeburg Medical Society has been energetically at work trying to curb quack practices in that city. At a recent meeting it was shown that charlatan ads were becoming very much more moderate in tone and the writers now take pains to avoid conflicting with police regulations. The responsible editors of the journals publishing the

extravagant claims of the charlatans, are made parties to the suit when such is brought. According to the German law a charlatan is liable to prosecution if his promises to cure the patient delude the latter until the time is past when scientific medical or surgical aid might have been effective.

The Contract Practice Trouble in Germany.—The Berlin medical press urges reflection and moderation in the matter of the impending modification of the legislation in regard to sickness insurance, and warns against the possible consequences of such a serious step as a general strike of the contract doctors, referred to on p. 1,229 of our last issue. The newsy "Allg. Med. Ct.-Ztft." refrains from discussing the subject, and the "Deutsche Med. Wochenschrift" hints that more can be accomplished by moral suasion in the proper quarters than by the belligerent spirit manifested in southern Germany. It bids the profession ponder the saying "respice finem" (look to the end). A lay cablegram brings word that a duel with broadswords has recently taken place at Gera between a factory proprietor and a physician, Dr. Hirsch, said to be a former army officer. It states that the feeling of bitterness on account of the local physicians' strike is rather increasing, with no signs of compromise on either side.

Prophylaxis of Ankylostomiasis in Germany.—A conference to discuss the means of preventing the spread of miners' disease was held recently at Berlin, summoned by the government. The importance of prompt and repeated medical inspection and treatment was emphasized, and a law to check the removal of miners from one part of the country to another was advocated, prohibiting mine owners from employing newcomers until after they have undergone a searching physical examination. It was stated that disinfection with lime, salt, carbolic acid and other substances had not proved satisfactory, but that a thorough drying out of the affected mine for a long period had proved especially effective. The temporary substitution of dry for wet methods of mining was, therefore, advocated for certain mines. In treatment, the extract of fern was said to be effective in killing the parasite, but recurrence is possible, consequently the subjects should be examined afterward and supplementary courses instituted as needed. Hospital treatment is necessary.

Damage Suit for Inoculation of Malaria.—A medical journal published at Rome, "Il Policlinico," contained an article not long ago in which a physician described his successful inoculation of an elderly man with malaria in order to demonstrate a certain theory. The man had been in the hospital a number of years for an incurable nervous affection. The experiment was so successful that the malarial fever induced nearly proved fatal. The public authorities brought suit against the physician for voluntarily injuring the patient, and the suit was dismissed with a reprimand only because the subject of the experiment himself did not enter any complaint. The physician, in his defense, stated that his motive had been solely in the interests of science and the welfare of suffering humanity, and that such experiments had frequently been made in other countries. Galli describes the particulars of the suit in a recent letter to the "Muenchener Med. Wochenschrift," but does not mention the physician's name. The case is probably the same as that mentioned in THE JOURNAL in another column, p. 1,332, paragraph 53.

Medical Women in Russia.—On Feb. 20, 1903, was celebrated in Russia the twenty-fifth anniversary of the graduation of women physicians in Russia. On that date in 1878, 40 women had graduated and 20 more soon followed on their return from service in the Turko-Russian war. Dworetzky writes to the "Muenchener Med. Wochenschrift" describing the cordial welcome and facilities offered by the profession in Russia to medical women. More than forty years ago they were admitted free to the university lectures at St. Petersburg, Charkow, Kiev and Odessa, and were excluded from Moscow and Dorpat only on account of political uprisings at the time. They were admitted to the regular medical course in 1872, and finally in 1897 the Woman's Medical Institute at St. Petersburg was opened for them and is now taxed to its fullest capacity. Subscriptions poured in from all sides for this institute as the value of medical women for Russia is appreciated by physicians and laymen alike. They are especially needed among the Mohammedan women, who are not allowed to consult male physicians. Among others, the emir of Bokhara contributed largely to the institute. It has now 1,314 students, and 111 graduated last year. There are 35 professors and certain branches of medicine are taught here which are not yet in the curriculum of other Russian medical colleges. Twenty-four scholarships have been endowed and the minister of public instruction has applied to the authorities for permission to place the institute on the same footing as the other university medical colleges. Russian medical women have always, Dworetzky adds, held high the standard of the profession and served with conscientious and loyal devotion to duty. Their work is prolific of results among the poverty-stricken and ignorant peasants to whom they bring the light of civilization, as well as medical aid. Lewschin's new Cancer Research Institute at Moscow expressly states in its by-laws that medical women may be appointed to any post in the institution.

Advertisement as a Weapon Against Quacks.—Professor Folet of Lille publishes a strong article in the "Echo Med. du Nord" of April 19, entitled "Réclame contre Réclame." He has long contended that the best way to fight alcoholism and quacks is by way of publicity—advertising. Last February the Paris authorities posted the city with placards warning against the abuse of alcohol, and he states that it was like stirring up an ants' nest. Every liquor dealer, wholesale or retail, was up in arms at once, and yet the publicity was of the mildest form. He suggests that great good might be accomplished if the recent resolutions voted by the Académie de Médecine in regard to the dangers of liqueurs and alcohol were placarded, signed by the Académie. He would like to see such a measure perseveringly carried out with money behind it for an effective advertising campaign. He also suggests "An Appeal to Common Sense," to be published in the newspapers as a "display ad" among the various cure-alls, warning the public that a moment's reflection will show that it is impossible for a single remedy to be suitable for all kinds of diseases, all ages, sexes and temperaments; that the testimonials and photographs of persons cured, even if genuine, say nothing of the others who have not been cured or whose condition has been aggravated by these vaunted panaceas. The dupes say nothing and do not count, but nearly every physician might cite examples of such experiences. If an appeal of this nature were signed by several well-known names or by a local or national medical association, the public could not fail to be impressed sooner or later by persistent advertising of this sort. The medical mayor of Lyons has banished from public places under his jurisdiction the ads of venereal specialists, but Folet comments that a circular might have been placarded beside them warning against the consequences of venereal disease unless thoroughly and scientifically treated and giving notice of free consultations for the poor at certain places and hours. If wise councils and appeals to common sense were encountered on every hand, signed by persons whom the public has reason to respect, and such warnings were trumpeted far and near, fighting charlatans with their own weapon, he thinks the results would at least justify the attempt. The same number of the "Echo" contains a monograph on "Means of Repressing Quackery, from the Legal Standpoint." The conclusions are not encouraging for physicians.

Correspondence.

Cocoanuts for Worms.

MALDEN, MASS., April 27, 1903.

To the Editor:—In THE JOURNAL, April 4, 1903, is a query as to the value of cocoanut in the destruction of tapeworms. Having repeatedly seen statements in reliable medical publications asserting its value, I gave it a trial in two cases. The first case was prepared by a laxative of compound licorice powder followed by an aperient water; the patient was then kept on an exclusive diet of cocoanut and water for two days. On the morning of the third day a dose of castor oil brought away most of the worm. The patient was given cocoanut freely every day for a month with the hope that if the head remained in the intestine that the diet would be so unsuited to it that it would be easily swept out by the weekly laxatives which were advised. Joints of the worm reappeared after the usual period. In the second case the bowels were kept open and cocoanut was given as a prominent part of the diet for two weeks. Oleoresin of male fern 3iss, followed by salines, then removed so much of the worm that it seemed probable the head had passed and been overlooked. The treatment failed, although the patient partook freely of cocoanuts every day for four or five weeks following the administration of the fern. Possibly a different method of giving the remedy would prove successful, but I have nowhere seen a definite course laid

out for this treatment. These cases occurred in men in middle life, and were afterward cured by male fern given after the usual preparation of the patient. A. J. STEVENS, M.D.

Claudius Method of Preparing Catgut.

OAKLAND, CAL., April 23, 1903.

To the Editor:—After giving a faithful trial to the Claudius method of preparing gut according to the article of Senn in your issue of April 4, I find the gut worthless and brittle and absolutely dangerous to use; it also stains the fingers and is too elastic. One good point it has in its favor, the infected gut gave no growth on bouillon after eight days' immersion in the iodin solution. M. LEWIS EMERSON, M.D.

CHICAGO, May 1, 1903.

To the Editor:—The above failure is not due to the preparation of the catgut, but was the result of inferior catgut. We have had the same experience with inferior material, but with good catgut the result has always been ideal. In fact, the tensile strength has been greatly increased.

EMANUEL J. SENN, M.D.

Medical Organization.

The New York State Medical Association.

County associations have recently been formed in the counties of Allegany, Lewis, Monroe, Tompkins and Wayne and there are several others which are about to be organized.

Henry County (Ala.) Medical Society.

At a meeting of this society held in Dothan, April 7, the members residing in Houston County withdrew and the society was reorganized, with Dr. Thomas J. Kennedy, Halesburg, president.

Clay County (Neb.) Medical Society.

The medical fraternity of the county met at Clay Center, April 20, at which a medical society was organized, with the following officers: President, Dr. O. P. Shoemaker, Clay Center; vice-president, Dr. John W. Thompson, Sutton; secretary, Dr. Adam R. Ray, Fairfield, and treasurer, Dr. Fordyce H. McCabe, Fairfield.

Houston County (Ala.) Medical Society.

On May 7, the physicians residing in Houston County who withdrew from the Henry County Medical Society, met at Dothan, and organized a county society with Dr. John R. G. Howell, president; Dr. Henry Green, secretary; Dr. James L. Ellis, treasurer, and Dr. Mercer S. Davie, Jr., county health officer, all of Dothan.

Clinton County (Ohio) Medical Society.

This society met, April 29, at Wilmington, adopted the constitution recommended by the American Medical Association for county societies, and continued the following officers until the annual meeting in December: Dr. Allen T. Quinn, president; Dr. Eldorado Briggs, secretary, and Dr. George W. Wire, treasurer, all of Wilmington.

Madison County (Ill.) Medical Society.

The county organization was perfected at Alton, April 23, by the election of the officers of the Alton Medical Society to serve as officers for the county society for the remainder of the year. These officers are: Dr. Frank Worden, North Alton, president; Dr. Waldo Fisher, Alton, vice-president; Dr. George E. Wilkinson, Alton, corresponding secretary; Dr. Homer W. Davis, Alton, recording secretary, and Dr. Westley W. Halliburton, Alton, treasurer.

Allegany County (N. Y.) Medical Association.

The physicians of Allegany County met at Belmont recently and organized a county association, to be in affiliation with the New York State Medical Association, with an initial membership of 21. The officers elected are as follows: President, Dr. George H. Witter, Wellsville; vice-president, Dr. William O. Congdon, Cuba, and secretary and treasurer, Dr. Horace L. Hulett, Alientown. Dr. Charles M. Post, Alfred, and Nathaniel H. Fuller, Friendship, were elected delegates to the state association.

Societies.

COMING MEETINGS.

American Academy of Medicine, Washington, D. C., May 11-12.
American Therapeutic Society, Washington, D. C., May 11-13.
Oklahoma Territorial Medical Association, Guthrie, May 12.
American Association of Genito-Urinary Surgeons, Washington, D. C., May 12-14.
American Dermatological Association, Washington, D. C., May 12-14.
American Surgical Association, Washington, D. C., May 12-14.
American Orthopedic Association, Washington, D. C., May 12-14.
American Pediatric Society, Washington, D. C., May 12-14.
Association of American Physicians, Washington, D. C., May 12-14.
American Medico-Psychological Association, Washington, D. C., May 12-15.
American Ophthalmological Association, Washington, D. C., May 13-14.
Association of Military Surgeons of the United States, Boston, May 19-21.
New Hampshire Medical Society, Concord, May 21-22.
North Dakota State Medical Society, Bismarck, May 21-22.
South Dakota State Medical Society, Mitchell, May 27-28.
Connecticut Medical Society, Hartford, May 27-28.
West Virginia State Medical Association, Charleston, May 26-28.
Indian Territory Medical Association, South McAlester, June 2-3.
Medical Society of the State of North Carolina, Hot Springs, June 2.
Ohio State Medical Society, Dayton, June 3-5.
Rhode Island Medical Society, Providence, June 4.
Wisconsin State Medical Society, Milwaukee, June 3-5.
Maine Medical Association, Portland, June 3-5.
Indiana State Medical Society, Richmond, June 4-5.
Medical Society of Delaware, Dover, June 9.
Massachusetts Medical Society, Boston, June 9-10.
Michigan State Medical Society, Detroit, June 11-12.
Minnesota State Medical Society, St. Paul, June 17.
Medical Association of Montana, Helena, June 17-18.
Medical Society of New Jersey, Asbury Park, June 23-25.

Columbia (S. C.) Medical Society.—At the regular meeting, April 6, Dr. Lawrence B. Owens was elected president; Dr. D. Strother Pope, vice-president, and Dr. Mary R. Baker, secretary-treasurer.

Louisville Medical and Surgical Society.—This society was organized April 20, with Dr. R. Lindsay Ireland, president; Dr. Frank J. Kiefer,, vice-president; Dr. Harry A. Davidson, secretary, and Dr. W. Jennings, treasurer.

American Medico-Psychological Association.—This association, formerly known as the Association of Medical Superintendents of American Institutions for the Insane, will hold its fifty-ninth annual meeting in Washington, May 12, 13, 14 and 15.

South Idaho District Medical Association.—At the annual meeting held at Boise, April 8 and 9, Dr. Lewis C. Bowers, Boise, was elected president; Dr. J. S. Stewart, Boise, vice-president, and Dr. Hubert A. Castle, Pocatello, secretary-treasurer.

Hampden District (Mass.) Medical Society.—The annual meeting was held in Springfield, Mass., April 21. Dr. James W. Hannum, Ludlow, was elected president; Dr. Angelo O. Squier, Springfield, president, and Dr. James E. Marah, Springfield, secretary and treasurer.

Whiteside County (Ill.) Medical Society.—At the annual meeting held in Morrison, April 15, Dr. James A. Nowlen, Morrison, was elected president; Dr. Charles E. Parker, Sterling, vice-president; Dr. Perry F. Purdue, Lyndon, secretary, and Dr. John F. Keefer, Sterling, treasurer.

Cecil County (Md.) Medical Society.—The annual meeting was held at Elkton, April 16, and the following officers were elected: Dr. David L. Gifford, Zion, president; Dr. George M. Stump, Perryville, vice-president; Dr. Howard Bratton, Elkton, secretary, and Dr. John H. Jamar, Elkton, treasurer.

Northeast Missouri Medical Association.—At the annual meeting held in Memphis, April 14, Dr. Frank B. Hiller, Kahoka, was elected president; Dr. James B. Bridges, Downing, vice-president, and Dr. E. E. Parrish, Memphis, secretary-treasurer. The next meeting will be held in Kahoka, in October.

Brainerd District (Ill.) Medical Society.—The annual meeting was held in Lincoln, April 23. Dr. Algernon M. Sargent, Lincoln, was elected president; Dr. Irving Newcomer, Petersburg, vice-president; Dr. Harry S. Oyler, Lincoln, secretary; Dr.

V 19

Charles C. Reed, Lincoln, treasurer, and Dr. James Lowrie, Lincoln, delegate to the Illinois State Medical Society.

State Society of Iowa Medical Women.—The medical women of Iowa met in annual session at Sioux City, April 14 and 15, and elected the following officers: Dr. Jennie McCowen, Davenport, president; Drs. Kate A. Mason-Hogle, Mount Vernon, and Lenna L. Meanes, Des Moines, vice-presidents; Dr. Anna Burnett, Mount Pleasant, secretary, and Dr. Agnes Eichelberger, Sioux City, treasurer.

Washington County (Ark.) Medical Society.—At the annual meeting in Fayetteville, April 14, the following officers were elected: Dr. William B. Welch, Fayetteville, president; Drs. John Young, Springdale, and E. G. McCormick, vice-presidents; Dr. Charles M. Robinson, Dutch Mills, secretary; Dr. Robert R. Dinwiddie, Fayetteville, librarian, and Dr. Frank B. Young, Springdale, delegate to Arkansas Medical Society.

Rock Island County (Ill.) Medical Society.—At the annual meeting in Rock Island, April 14, the following officers were elected: Dr. William R. Freek, Cordova, president; Drs. Charles C. Carter, Rock Island, and Lewis D. Dunn, Moline, vice-presidents; Dr. Thomas J. Lamping, Moline, secretary; Dr. Louis Ostrom, Jr., Rock Island, treasurer; Dr. George L. Eyster, Rock Island, official reporter, and Dr. Albert M. Beal, Moline, delegate to the Illinois State Medical Society.

Lewis County (N. Y.) Medical Association.—At the annual meeting held in Lowville, April 13, Dr. Alexander H. Crosby, Lowville, was elected president; Dr. George H. Littlefield, Glenfield, vice-president; Dr. Leroy W. King, Lowville, secretary; Dr. Charles E. Douglass, Lowville, treasurer. Dr. Alex. H. Crosby was chosen member of the nominating committee of the First District Branch of the New York State Medical Association. As fellow to the New York State Medical Association Dr. Charles E. Douglass was chosen; alternate, Dr. Ira D. Spencer, Croghan.

Northwestern Wisconsin Medical Association.—At the annual meeting, held at Stevens Point, April 14, the following officers were elected: President, Dr. Douglas L. Sauerhering, Wausau; vice-presidents, Drs. Karl W. Doege, Marshfield, Levi H. Pelton, Waupaca, and Frank A. Southwick, Stevens Point; secretary and treasurer, Dr. Carl von Neupert, Jr., Stevens Point, and censor for three years, Dr. William W. Gregory, Stevens Point. Hereafter, this association will constitute a district of the Wisconsin State Medical Society, and will comprise Portage, Waupaca, Waushara, Clark, Marathon and Wood counties. Quarterly meetings will be held at Waupaca in July, at Wausau in October, at Grand Rapids in January, and the next annual meeting at Stevens Point in April, 1904.

Kentucky State Medical Society.—At the annual meeting held in Louisville, April 22, 23 and 24, 424 members were registered. It was reported that the membership of the society exceeded 1,600. Lexington was selected as the meeting place for 1904. The following officers were elected: President, Dr. Steele Bailey, Stanford (secretary for 18 years); vice-presidents, Drs. John F. Reynolds, Mount Sterling, Milton P. Creel, Central City, and Frank P. Strickler, Elizabethtown; secretary, Dr. James B. Bullitt, Louisville (for five years); treasurer, Dr. William B. McClure, Lexington; orator in medicine, Dr. Joseph B. Marvin, Louisville; orator in surgery, Dr. Philip H. Stewart, Paducah, and delegates to the American Medical Association, Drs. J. N. McCormack, Bowling Green; Ap Morgan Vance, Louisville, and Isaac A. Shirley, Winchester.

FOURTEENTH INTERNATIONAL CONGRESS OF MEDICINE.

Held in Madrid, Spain, April 23-30, 1903.

President Julian Calleja y Sanchez presiding.

[*By Cablegram from Our Special Correspondent.*]

[*Continued from page 1231.*]

MADRID, April 30, 1903.

Fuller reports have been mailed.

Section on Medicine.

Professor Lorand, Carlsbad, in a paper on "Diabetes, Acromegaly and Basedow's Disease," spoke of their related pathogenesis. Diseases of the vascular glands are often associated with the glycosuria of Basedow, and glycosuria is invariably associated with hyperactivity of the thyroid body as in chlorosis, poisonings, lactourea and pregnancy. Thyroidin produces it. Marasmus, myxedema and hereditary syphilis are never associated with glycosuria. True atrophy of the thyroid is rare in infancy.

DISCUSSION.

Drs. Castellvi, Madrid, and Parkinson spoke, agreeing with the points made.

Professor Lorand said that diabetic patients are improved by new conditions producing thyroid atrophy, such as cancer or tuberculosis of the thyroid. Hypertrophy is rare in tuberculous abscess. There is swelling of the gland in infections. An antibacterial function was inferred from the action of the gland *in vitro*. Secondary thyroid atrophy in marasmus produces an indurate edema like myxedema and there is a similar loathing for meat.

Clinical Forms of Hyperchlorhydria.

Dr. Thorena, Madrid, said that this condition is only a symptom of some functional, organic or constitutional disease. Its treatment is chiefly symptomatic and rather unsatisfactory, and relapses are frequent. The diet should be albuminous. Condiments should be omitted. Alkalies are useful. Gastroenterostomy may be required in severe cases with myasthenia, dilatation and inability to diet.

DISCUSSION.

Dr. Maragliano, Naples, protested that the condition was invariably functional and subject to nervous influences. The symptom is controllable medically and operation is absolutely contraindicated. He thought that the profession commonly overestimates the importance of HCl.

Luetic Arthritis.

Professor Singer, Vienna, described this condition, which he said was found in the tertiary stage of syphilis. The character of the process is a torpid thickening of the capsule and of the periosteum accompanied by exostoses. It may last for years without much functional disturbance; the latter is usually slight. Diagnosis is to be made in most cases by the absence of fever, and by the exclusion of an associated endocarditis or gonorrhea. The "mixed treatment," he thought, secured the best results.

Section on Pediatrics. Discussion of Artificial Feeding.

Professor Concetti, Rome, emphasized that the artificial feeding of infants was inadvisable, but occasionally became necessary. It is inadvisable because the natural milk of the mother is never replaced by the most perfect substitute, while sterilization of cow's milk and other artificial foods destroys their susceptibility to the action of the digestive ferments and renders assimilation imperfect.

DISCUSSION.

Dr. Raimondi, Paris, said that he had been able to secure aseptic milk for the use of 200 children from birth to two years of age. He described his method, which was to have the udders of the cows and the hands of the milkers thoroughly washed in a 1-1,000 solution of bichlorid. He did not have the milk itself subjected to sterilization or alteration, but it was given to the children within 20 minutes after it came from the cows. This plan had met with almost invariable success as no digestive disturbance traceable to the food was found among the infants. General congratulations were offered Dr. Raimondi.

Scarlatina.

Dr. Moser, Vienna, described the results of his scarlet fever serum. He said that 142 children had received treatment. The serum was obtained from horses which had been immunized by a mixture of cultures of streptococci and the heart blood of scarlatina. Seven months were required to complete the immunization; 150 c.c. produced an exanthematous fever. The use of the serum counteracts the constitutional vomiting and the delirium reduces the pulse and temperature in less than twenty-four hours. Its administration should be begun as early as possible in order to prevent the occurrence of angina and nephritis. These complications have been markedly reduced by its use and the mortality lessened one-half. Agglutination of the scarlet fever cocci is obtained in dilutions of 1 to 250,000.

DISCUSSION.

Dr. Merfan, Paris, suggested the division of cases of scarlatina into four grades, according to their severity.

Drs. Latour and Marmorek regarded the serum as useless.

Dr. Escherich had had convincing personal experience in its use. His mortality had been lower than that of any other Vienna hospital which did not use the serum.

[Moser's serum was described more fully in THE JOURNAL of Nov. 8, 1902, p. 1189.]

Treatment of Tuberculosis in Children by Meat Juice and Raw Meat.

Dr. A. Josias and Dr. T. C. Roux, Paris, presented the results of their treatment, 150 gms. of muscle juice and 100 gms. of raw meat each day, in 46 cases of tuberculosis of all types, of which 30 had pulmonary affections. They conclude that the treatment ameliorates the general condition noticeably, increases the weight and arrests the progress of the local disease. Moreover, the cure is permanent. In cases of very profound disturbance and advanced cavity-formation, the treatment is frequently without avail.

The Bacterial Agent of Chorea, Endocarditis and Rheumatism.

Dr. F. J. Poynton emphasized the clinical evidence in favor of the rheumatic origin of chorea. He said that after injecting a rabbit with the diplococcus of rheumatic fever, the animal developed a chorea, and the micro-organism was demonstrated in the pia mater and the endothelium of the cortical capillaries. This demonstration had been repeated by Fritz Meyer and Paine had also found micrococci in the mitral valve, the cortex and the pia, in a case of human chorea. The urine in one case of chorea presented the same diplococcus which produced chorea, endocarditis, and rheumatism in a rabbit. But, he said, chorea might also be caused by other bacteria, as those of erysipelas, or the pyogenic forms.

Spinal Cocainization in Children.

Dr. P. B. Diaz, Laragossa, presented reports of a series of 15 operations on children varying from 4 to 16 years of age with spinal cocainization. The results were very satisfactory.

Treatment of Ophthalmic Neonatorum.

Dr. J. V. Portello, Valencia, read a paper in which he detailed his methods in the treatment of ophthalmic neonatorum at length. He condemned the use of silver nitrate, corrosive sublimate, and of iodoform, which, he said, aggravated the inflammation and furthered the infection. He was thoroughly pleased, however, with protargol.

Coryza and Hereditary Syphilis.

Dr. L. Carralero, Madrid, said that the coryza of nurslings was one of the most constant, in the majority of cases the earliest, and at times the only symptom of precocious hereditary syphilis. The diagnosis presents difficulties when there are no other symptoms, but every case of purulent rhinitis in a nursling was to be regarded as symptomatic of a diathesis of syphilis. The condition is per se of serious import, inasmuch as it impairs the act of sucking and also leads to bronchopneumonia and otitides. Treatment is by general antiluetic courses and local measures.

Periodicity in Growth.

Dr. T. Atlassaff, Kiew, said that the periods of growth varied from one to three, rarely more, in the life of an individual. At these periods the rapid development of the organism was accompanied by an especial predisposition to disease. Consequently, it was important not to enhance this especial vulnerability by straining the individual with extra toil and lessons.

Serotherapy in Diphtheria.

Dr. Jules Comby, the famous pediatrist of Paris, in a very full paper on the various aspects of serotherapy in diphtheria, said that the beneficial effect of the serum was evident both in the local and in its constitutional effects. The subsequent enemia, languor and feebleness were due not to the serum but to the diphtheria. In every case of even suspected diphtheria the injection should invariably be made, even if the case be of mild type. In cases of laryngeal diphtheria, of malignant types or late cases the dose should be doubled, and may be repeated in twenty-four hours. The injection is indicated in all localizations of the infection and for post-diphtheritic affections (paralysis). Malign cases present no contraindication. In benign cases, if complicated by a pulmonary tuberculosis or by an old nephritis, only feeble doses should be employed. The serum decreases the mortality by three-quarters and, if employed within the first forty-eight hours, abolishes it. The most serious and confusing complication is furnished by the exanthemata, which occur immediately (first days), early (first week), or late (two weeks or more), and mimic measles and scarlet fever. Arthralgias, myalgias, anginas, also occur.

Treatment of Clubfoot.

Dr. O. Vulpius, Heidelberg, said that congenital clubfoot should be invariably treated by redressement, and only in cases in which this had failed was surgical intervention admissible. Paralytic clubfoot was to be treated by redressement for the deformity and by tendon transplantation, if there were sound muscles, for the paralysis; if there were no sound muscles, arthrodesis was advisable. Orthopedic apparatus were only the last resort.

Human Milk for Infants.

Dr. Monti, Vienna, urged that, in view that human milk was the only proper food for infants, it should be made accessible to all classes of the population. He proposed the foundation of institutions of wet nurses for the use of such of the poor as have need for it.

Is Tuberculosis Transmissible by Cow's Milk?

Dr. H. Rehn, Wiesbaden, stated that in a case under observation bovine tuberculosis had not been transmissible through the milk to a human infant.

Paraffin in Umbilical Hernia.

Professor Escherich, Graz, reported his interesting experience with paraffin injection in the cure of infantile umbilical hernia, the treatment of which had heretofore been very unsatisfactory. He had introduced the paraffin at the temperature of 113 F. into the sac of the small hernia, where it cooled and became firm almost instantly. The result was an immediate narrowing of the sac and contraction of the opening. A radical cure had been uniformly obtained.

Splenic Hypertrophy in Infants.

Professor Marfan, Paris, presented a paper on enlargement of the spleen in infants. This condition he usually regarded as a syphilitic interstitial splenitis. It should be differentiated from the enlargement of the organ accompanying rachitic splenoptosis. If associated with anemia it is safe to diagnosticate hereditary syphilis, despite the absence of other characteristic symptoms.

Typhoid Fever Serotherapy in Children.

Professor Josias, Paris, reported the results of this method of treatment as employed by him in fifty cases.

Professor Chantemesse said that the benefits obtained from serotherapy in typhoid fever were very great and no ill effects had so far been observed. The rule was to inject 1 c.c. for every 70 pounds of the patient's weight unless there was evidence of unusual depression, in which condition a diminished dose was desirable. The effects are a reduction of temperature and pulse rate, an abbreviation of the attack with a diminished tendency to relapses and complications and a remarkable improvement of the mortality rate. A mortality of 4 per cent. had been obtained under this mode of treatment, whereas 14 per cent. was the average rate in other Parisian hospitals.

Dr. Vargas, Madrid, expressed himself as favorably impressed with the serum treatment of typhoid fever, and said he was experimenting with an antipertussis serum.

Professor Josias explained that the Widal reaction was precisely the same in children as in adults; 70 per cent. gave evidence of agglutination before the tenth day, and the re-

action was equally as marked before the age of 8 as afterward, notwithstanding Kasal found four retarded cases among children. The Widal reaction is unaffected by injection of the antiserum.

Rhinoscleroma.

Professor Schroetter, Vienna, said that this condition, although common in Austria, was never described elsewhere. It must occur in other countries, especially in America, as a result of the large Austrian immigration thither. At times it would be found difficult to distinguish it from syphilis or tuberculosis, as it was manifested by nodules, ulcers and cicatrices. Rhinoscleroma is a highly infectious disease and, on this account, is worthy of governmental inquiry and attention.

Professor Garcia said that, in twenty years' experience as a pathologist, he had never encountered an example of the disease in Spain.

Section on Neurology—Voluntary Motion.

Dr. H. Fraenkel, Switzerland, famous for his work in locomotor ataxia, urged certain novel ideas in relation to voluntary motion. Motion never exists as the function of the will alone, but is always determined by sensory stimuli. Serious disturbances of sensibility and anesthesia consequently result in pronounced disturbance (ataxia), or abolition of motion. Dr. Fraenkel then passed on to a discussion of the value of re-education in tabes, which, he said, completely overthrew the doctrine of the progressive nature of the disease. He was successful, he said, in re-education of even the severest cases of ataxia. He deprecated the use of the apparatus of Leyden and Jacob.

Pseudosclerosis.

Dr. L. von Frankl-Hochwart, Vienna, read a paper on this type of disease first described by Westphal, in which he said that it could be diagnosed, though with difficulty, during life. From multiple sclerosis it differs in the absence of nystagmus, of the lesions of the optic nerve, and the sensory disturbances, of the facial and palatal paralysis, and finally of the sphincteric paralyses, and in the frequent presence of mental disturbances; the scanning speech and the tremor also differ in certain details. The disease presents no anatomic lesions, but is not hysterical, from which it is distinguished chiefly by its occasionally rapidly fatal course, the decubitus and other symptoms. He then considered diffuse sclerosis.

Psychiatry as a Clinical Science.

Dr. P. Pregowski, Heidelberg, said that the chief element of progress in modern psychiatry has been the recognition of mental states (depression, mania, etc.) as symptoms, or periods, of various types of disease and not as diseases *sui generis*. He said that the study of the associated bio-chemical changes in such cases and of pathologic psychology were of the greatest importance for future progress.

The Thalamus.

Professor Ramón y Cajal, Madrid, reported his recent studies. He described the investigations on this important part of the cerebral anatomy which have been made by German anatomists and by himself. As a result of these researches it is now established that the thalamus is connected with certain sensory tracts as well as with the organs of hearing and vision. It accordingly has much wider and more important relations than had heretofore been accorded it.

Section on Drug and Food Adulteration—Intestinal Therapy.

Professor Bernheim, Paris, has found the stomach frequently intolerant of many drugs which are administered in gelatin or keratin coatings, which, he declared, often dissolve while yet in the stomach. By experiments he has found that commercial gluten dissolves in the stomach in about two hours, pure gluten in from three to seven hours and in the intestine in three hours. By the addition of a resin the physiologic dose may be depended on to pass through the most delicate stomach without irritation.

Salicylic Acid in Food.

Professor Brouardel, Paris, called the attention to the wide use of salicylic acid as a preservative of food. There were annually manufactured over 150,000 kilograms of this drug, far more than enough for all the rheumatics in the world. Salicylic acid is a weak and supposedly harmless antiseptic. Large quantities are required in the manufacture of beer and, while in medicinal doses it is ordinarily harmless, the habitual consumption of minute amounts may develop a cumulative effect and bring about very undesirable chronic changes. While an occasional drink of cognac may be innocent, a daily glass will pretty surely excite an arteriosclerosis. The elimination of salicylic acid or its salts is rapid in the young, but it is likely to be slow and even prolonged for days in the aged or infirm and in pregnant women or young children. In regard to arsenic, he said that the effect of repeated minute doses is known to be disastrous to the digestive organs, as well as the nervous system. An epidemic of diarrhea, traceable to arsenic, affecting no less than 4,000 persons was cited. Although arsenic is one of the oldest known poisons, its influence when received in minimal doses may escape detection for months. Cases of nephritis and arteriosclerosis are among the effects of salicylic and boric acid on the weak. Dogs subjected to experimentation with these and similar drugs soon collapsed with diabetic paralysis.

Section on Surgery—Prostatectomy.

Dr. S. Clado, Paris, declared the suprapubic route to be indicated only for cases in which the middle lobe formed a tongue in the bladder. The operation of choice is by the perineal route; complete extirpation is advisable, but not absolutely necessary. If there is an independent, pedunculated projection into the bladder, the perineal operation is to be supplemented by a suprapubic incision. In prostato-vesical tuberculosis alone is incision of the urethra advisable. In other cases it is to be carefully avoided.

Radical Cure for Hypertrophy of the Prostate.

Dr. A. Pousson, Bordeaux, reported his experiences and discussed the various methods for the treatment of the prostate. Orchidectomy, single or double, has its dangers for old men and produces very inconstant results. Vasectomy and angioneurectomy do not reduce the prostate, but tend to prevent the congestive attacks of that gland which so often induce acute ischuria. Suprapubic prostatectomy rarely improves spontaneous micturition, but facilitates lavage of the blood, and so diminishes the chances of ascending infection. It is better borne by very old men than is the perineal operation. The latter procedure, however, with total extirpation of the gland, is the single rational and radical cure.

Surgical Intervention in Nephritis.

Dr. A. Pousson, Bordeaux, said that his results agreed with those of Harrison and of Edebohls and indicated that operation could ameliorate or arrest for a time the course of a case of chronic Bright's disease. He advises decortication only for the more or less latent periods, while cases of plain uremia, with oliguria, diminution of urea, etc., demand nephrotomy. The good effects are attributable to relaxation of intrarenal tension, to improved circulation and to absorption of infiltrations. In all his cases he has seen improvement in the urine and disappearance of the hydremic and uremic symptoms.

Functional Renal Diagnosis.

Dr. A. Hogge, Liege, discussed the new methods of diagnosis. All are of value, but they fail to exactly measure the kidney functions. In other words, they allow a comparison of the two organs and so serve as a check on surgical intervention.

Filling of Bone Cavities.

Dr. M. Silbermark, Vienna, described Professor Mosetigmoorhof's method of removing all diseased bone, drying the cavity with hot air, and then filling with a preparation of lead. He exhibited the metal and the instruments. He showed by Roentgen photographs that the lead is gradually absorbed and replaced by fresh bone. The cavity should be excavated well into the healthy area.

Surgery of the Stomach.

Dr. H. Hartmann, Paris, said that ablation was the only operation for neoplasms. Wherever medical treatment had

been inefficacious in a suspected case, laparotomy is indicated. For benign stenosis, operation affords immediate relief and has no greater mortality than herniotomy. In hour-glass contraction and painful adhesions this procedure gives good results. For the acute hemorrhage of ulcer Dr. Hartmann recommends operation only in those cases complicated by pyloric stenosis, with gastric unrest; here gastroenterectomy is the best sedative and hemostatic. Ulcers which remain painful in spite of treatment, gastrosuccorrhea and rebellious hyperchlorhydria, if accompanied by the pyloric syndrome, probably indicate an ulcer at the outlet, and demand operation.

General Sessions—Immunization of Man Against Tuberculosis.

Prof. E. Maragliano, Genoa, said in his address before the general conference that there existed in most individuals a natural immunity against tuberculosis. By this fact is explained the escape of the large number of persons who are daily exposed to infection. This power of resistance is apparently potent in direct ratio to the standard of good health maintained in the individual. Any decline of the vital strength renders the organism just so much more liable to invasion. The truth of this assertion is confirmed by experimentation on lower animals and by observation on the denizens of the tenement districts. The object for which the author had been zealously laboring for thirty years was the establishment of this standard of immunity through improved methods of living and also by the use of an immunizing serum that might be injected hypodermatically or perhaps taken by the mouth. Professor Maragliano thought he had made some progress in this direction, as his experiments on animals had met sufficient success to justify a trial on man.

Closing Session.

At the close of the general session addresses were delivered by representatives of the several nations that had taken part in the congress. It was regrettable that the committee representing the United States should have been refused admission to the stage at the inauguration of the ambassadors and that our delegate alone failed to deliver his address. In this connection and in explanation of the above-mentioned irregularities it should be stated that the preparations for the accommodation of the scientific and public meetings of the congress were very inadequate. The sections were forced to occupy widely separated halls, to which there were unsatisfactory means of transportation. Perhaps the most noticeable lack of organization was to be seen in the want of an authoritative bureau of information. Even the committees were unable to tell when or where many of the important proceedings would occur.

The social festivities, however, were abundant and enjoyable. Americans especially appreciated the hospitality of Mr. and Mrs. Arthur S. Hardy, the United States minister to Spain.

Prizes.

At the session held in 1897 at Moscow that city voted, in honor of the Russian meeting, a prize to be awarded for original research. This was unanimously awarded Professor Metschnikoff. A similar prize, donated by the city of Paris, was awarded, after a spirited contest, to Professor Grassi. On the first ballot the votes stood Grassi 42, Roentgen 39, and Lavaran 5.

The next place of meeting will be at Lisbon, Portugal, in 1906, with Professor Alfredo da Costa of that city as president.

(To be continued.)

ILLINOIS STATE MEDICAL SOCIETY.

Fifty-third Annual Meeting, held in Chicago, April 29 and 30, and May 1 and 2, 1903.

The society convened in Tremont Hall of Northwestern University, under the presidency of Dr. M. L. Harris, Chicago.

Addresses of welcome were delivered by Dr. Taylor, prosecuting attorney of Chicago; Hon. Henry G. Foreman, president of the county commissioners, and by Dr. James H. Stowell.

The response to these addresses was made by Dr. M. L. Harris, the president.

President's Address.

PRESIDENT HARRIS, in his address, stated, among other things, that success, as applied to the life of the physician, meant something else than his own opinion of himself. It meant the realization by others of the value of his labors, of their value, not simply from a commercial standpoint, but from the standpoint of the scientist and the humanitarian, to others of his knowledge and skill. That natural aptitude and ability count for something in determining the degree of success to which an individual may attain must be granted, as it is a common observation in all walks of life that some individuals with scarcely any opportunities in early life have struggled to the top, over almost insuperable obstacles; notwithstanding this fact, the scientific child study which so many are now vigorously prosecuting with such rich rewards for their labor, demonstrates clearly that much of the dulness, the apparent stupidity and lack of capacity to learn in the early years of life were closely related to, if not dependent on, certain physical defects, and that many of these defects and the capacity to learn had, in a broad sense, a nutritional basis.

He recapitulated briefly the factors which contribute most to the scientific success of the physician, namely: 1. A thorough knowledge of the rules of logic and the theory of reasoning, in order that the physician might be able to deduce warrantable conclusions from the evidence at hand. 2. The physician must train his powers of observation, in order to present to his reasoning faculties correct data. 3. He must be familiar with what is known on the subject before him, in order that he may correlate his own observations with the facts presented by others.

Approximately seventy papers were read before the three Sections, and three general addresses delivered. We present abstracts of some of the more interesting papers.

The Dangers of Exclusive Milk Diet in Nephritis.

DR. A. C. CROFTAN of Chicago read a paper with this title. The popular prejudice in favor of an exclusive milk diet in nephritis, and the fundamental fallacies of this prejudice, were pointed out. The three indications for dietetic treatment of nephritis were: 1. Protection of the secreting epithelium of the kidney. 2. Protection of the cardio-vascular apparatus. 3. Protection of the general nutrition of the patient. The author presented reasons why an exclusive milk diet met none of these requirements. The best substitute for an exclusive milk diet, as deducted from modern investigations into the causes of nephritis and the excretion of urinary solids in inflammatory diseases of the kidneys, was pointed out.

The Breast Versus the Bottle in Infant Feeding.

DR. ALFRED C. COTTON, Chicago, compared the mortality statistics of natural and artificial feeding. He referred to the relative morbidity attending each method. Human milk was compared with that of other mammals. He pointed out the dangers of the acceptance of even the best known methods of artificial feeding. The more nearly perfect the food laboratory the greater were the possibilities of harm from over-confidence in artificial methods. Infants were too frequently denied the breast for trivial and insufficient reasons. In view of our knowledge of the morbidity and mortality of artificially fed infants what right had physicians needlessly to expose any infant to such chances? He made a plea for the establishment of a bureau of information and supervision, to facilitate the procuring of wet nurses when required.

Cockroaches as Typhoid Infection Carriers.

DR. ROSA ENGELMANN, Chicago, discussed this subject under the following heads: 1. Vermin as active intermediary hosts of various infections. 2. History of a house epidemic of typhoid fever. 3. Cockroaches, sewage and water denizens not heretofore classed as typhoid infection carriers. 4. Need of examination and cultures from intestinal contents and from feet of cockroaches for pathogenic germs—especially the Eberth bacillus. 5. Opportunity the coming summer (after necessarily prolonged rainfall) for such work in the vermin-infested slums of Chicago. (A portion of this paper was reported in THE JOURNAL, Feb. 14, 1903, p. 464.)

Hysteria.

DR. HUGH T. PATRICK, Chicago, reported cases of hysterical paraplegia, hysterical amblyopia with rigid pupil, hysterical anorexia, hysterical pseudo-meningitis and hysterical deaf-mutism.

The Treatment of Some of the Degenerations of the Cerebro-Spinal Apparatus, with Particular Reference to Optic Atrophy.

DR. ARCHIBALD CHURCH, Chicago, said that the general feeling was that degenerations taking place in the conducting tracts of the cord, as in locomotor ataxia and atrophy of the optic nerve, arising from any cause, as well as the changes in the brain and cord that are found in paretic dementia, are quite unamenable to treatment. In all of these conditions the tendency to remission was, in itself, a confusing element in judging the therapeutic value of any line of treatment. In the case of the optic nerve, the ophthalmoscope enabled the physician to accurately see changes which were taking place, and by approximate tests variations for better or worse could be actively determined and systematically recorded. A number of cases of optic atrophy associated with a secondary syphilis had been under observation for from two to ten years, and were made the basis of an estimate of the value of mercury in controlling these degenerations. Ophthalmoscopic examinations and perimetric records made in these cases by competent oculists demonstrate that in some instances degenerations in the optic nerve could be distinctly controlled. Other cases of locomotor ataxia and paretic dementia were adduced, in which the clinical records indicated a similar retarding influence on the processes of degeneration in the brain and cord.

Euphthalmin as a Mydriatic for the General Practitioner.

DR. ALBERT B. HALES, Chicago, said that the use of the ophthalmoscope was becoming more general in medical diagnosis. He pointed out the need of a drug to dilate the pupil, not only to study the condition of the fundus, but also to note the condition of the cornea, iris and lens. Atropin was too powerful, and destroyed accommodation. Homatropin was of only less strength, and was expensive. Cocain was good, but dangerous to the eye. Euphthalmin scarcely affected accommodation; it dilated the pupil fully and in a short time. It had no dangerous element about it, and its effect passed quickly away. He detailed experiments.

Abdominal Pain in Pleurisy and Pneumonia.

DR. JAMES B. HERRICK, Chicago, said that pain in pleurisy and pneumonia might be referred not only to the affected side of the chest, but to the opposite side of the abdomen. In the latter case, abdominal disease, for example appendicitis, might be simulated. He dwelt on the importance of recognizing the thoracic organ of pain, as it might thus prevent surgical interference. Illustrative cases were reported. The anatomic basis for the referred pain was found chiefly in the course and distribution of the intercostal nerves. The diagnosis was generally easy when once the possibility of the thoracic cause for the abdominal pain was thought of, and a careful examination of the chest made.

Some Unusual Cases of Chorea.

DR. L. HARRISON METTLER, Chicago, reported cases and advanced the idea that chorea was a symptom and not a disease; that its etiology was not so obscure as it appeared to be; that it has some remarkable frequently overlooked features in its symptomatology, and that its treatment was varied and deserving of more careful study.

The General Practitioner and His Relation to Early Surgical Operations.

DR. E. B. MONTGOMERY, Quincy, called attention to the fact that the internists were too often apt to be influenced by the law opinion that surgical operations were only to be done as a last resort, and unconsciously lent themselves to delay in a large class of cases that should have surgical intervention early in their course. He contended that the unfavorable results which were shown to follow in too large a percentage of cases of carcinoma of the breast and uterus were due to late operation. Appreciating this, the general practitioner should encourage among his patrons immediate consultation of the physician concerning every trouble with the breast in women, however insignificant, or any irregular hemorrhage, occurring after the age of 40 years, and, if there was the slightest question concerning the presence of malignant disease, should associate a surgeon with him in the case. In the author's opinion, the same rules should obtain in typhoid fever, with any evidence of perforation; in appendicitis; in cholecystitis with enlargement of the gall bladder, and in enlargement of the prostate gland after the catheter life has begun; in pleuritic effusions lasting over two weeks, either purulent or not, and in hypertrophic cirrhosis of the liver, the early presence of the surgeon was advocated. In support of these opinions, facts and cases were adduced.

The Traction Injury of Arteries.

DR. S. M. WYLIE, Paxton, said that normal nutrition and vascularization of the extremities depended on an unobstructed flow of normal blood. Stagnation, partial or complete, favored the formation of fibrinous clots. Traction injuries of the arteries, by disturbing the normal relation and function of the various coats, favored the formation of thrombus in two ways: 1. The ruptured walls of the interna curling up in the lumen of the vessel act as an obstructant to the current. 2. The loss of contractile power from the overstretched or torn muscular fibers favored stagnation and arrested the flow. Both were factors in the function of occlusion thrombi, causing complete arrest of the circulation and subsequent death of the part. This was a surgical accident often overlooked at the time of the first dressing of an injured extremity, and when subsequent gangrene ensued, as it often did, it was attributed to faulty methods of applying the dressing.

Modern Surgery of Congenital Cleft [illegible]te.

DR. S. R. HOPKINS, Springfield, gave a description of the uranoplastic operation in its infancy, and its advantages over later operations, with the statistics furnished by different operators. He likewise gave a description of staphylorrhaphy in later life; also made remarks on the power of speech following operations. He recommended a change from the usual *modus operandi* of closing continuous clefts in children over six months of age, with a report of two cases illustrating the proposed method.

The Treatment and the Causes of Death in Placenta Previa.

DR. P. M. BURKE, La Salle, pointed out that the cause of death in placenta previa was extensive rupture of the uterus and not hemorrhage due to a mere separation of the placenta in the act of turning, as was popularly believed. Out of 9 cases, in all of which he turned, there were 4 extensive ruptures. Three of the patients died and one recovered. The cause of death applied to the mother, as the cause of death of the child was self-evident. The only deaths were in the ruptured cases unrepaired. The lack of knowledge was due to small individual experience, consequent on the infrequency of such cases. In numerous cases of turning, in about a thousand cases of obstetrics, he never had had a rupture except in placenta previa. The occurrence of rupture in these cases was not a coincidence, but due to the friable, brittle condition of the lower segment of the uterus. The treatment was surgical operation, prompt, heroic and successful repair of the rupture.

Tuberculosis of the Vestibule of the Female Genitals.

DR. J. H. STEALY, Freeport, reviewed the literature and referred to the rarity of the lesion; the possible cause of the unfavorable course taken by the disease in this region; the difficulties attending the determination of whether the lesion was primary or secondary, and its bearing on the prognosis. He said the tuberculin test was the only accurate method.

Officers for the Ensuing Year.

The following officers were elected: President, Dr. Carl E. Black, Jacksonville; secretary, Dr. E. W. Weis, Ottawa; treasurer, Dr. Everett J. Brown, Decatur. Bloomington was selected as the place for holding the next annual meeting.

The new constitution, in conformity with the plan of the American Medical Association, was adopted without material change.

Marriages.

HORACE M. SIMMONS, M.D., to Miss Caroline F. Johnson, both of Baltimore, April 22.

EDWIN H. EHLERT, M.D., to Miss Elizabeth S. Pike, both of Hartford, Wis., April 25.

MAYNARD A. AUSTIN, M.D., to Miss Anna Grace Baker, both of Anderson, Ind., April 29.

S. EDWARD SANDERSON, M.D., to Miss Clara May Stevens, both of Detroit, Mich., April 28.

AUGUSTIN V. WENDELL, M.D., to Miss Catherine F. Klein, both of Newark, N. J., March 25.

THOMAS C. PEEBLES, M.D., to Miss Maud Van Tine, both of Lutherville, Baltimore County, Md., April 23.

Deaths.

James Bonaparte Greeley, M.D. Vermont Medical College, Woodstock, 1855, died at his home in Thornton's Ferry, N. H., April 21, from heart disease, after an illness of two days, aged 71. He was born in Nashua, N. H., served as surgeon of the First Rhode Island Regiment in the Civil War, and was one of the best-known physicians in Southern New Hampshire. He also represented the town of Merrimack in the state legislature.

Washington Franklin Anderson, M.D. University of Maryland, Baltimore, 1844, the oldest physician in Utah; once medical adviser to Brigham Young, a resident of Salt Lake City for forty-six years; first president of the Utah Medical Society; a member of the territorial legislature in 1860 and 1861, died at his home Salt Lake City, April 22, after a short illness, aged 80.

Herman H. Shaaberg, M.D. Detroit College of Medicine, 1878, a member of the American Medical Association, and the Kalamazoo Academy of Medicine, at various times health officer and city physician of Kalamazoo, died at his home, April 24, from pneumonia, after an illness of one week, aged 54.

Hiram Long, M.D. New York Medical College, New York City, 1859, surgeon in the Civil War, for several terms president of the Sunbury (Pa.) Medical Association, died at his home in Sunbury, from heart disease, April 24, after a short illness, aged 71.

Benjamin Morris, M.D. University of Virginia, Charlottesville, Va., formerly of Martinsville, Va., died at the home of his father, Dr. William W. Morris, near Rangeley, Va., from consumption, April 15.

William H. Wooden, M.D. Medical College of Ohio, Cincinnati, 1879, a member of the Decatur County (Ind.) Medical Society, died at his home in Greensburg, April 23, aged 45.

Addison Cyrus Hinkson, M.D. College of Physicians and Surgeons of San Francisco, 1901, of Nevada City, Cal., died suddenly in San Francisco, April 22, from heart disease, aged 28.

William R. Davis, M.D. Eclectic Medical College of the City of New York, 1891, died at his home in Utica, N. Y., from consumption, April 19, after a lingering illness, aged 47.

Joseph A. Stegmann, M.D. Hahnemann Medical College, Philadelphia, 1886, died at his home in Philadelphia, April 24, from typhoid fever, after an illness of two weeks, aged 40.

Thomas A. Pineo, M.D. Long Island College Hospital, Brooklyn, 1898, died at his home in Brooklyn, April 19, from pneumonia, after an illness of nine days, aged 38.

James R. Todd, M.D. Kansas City Medical College, 1883, died at his home in Gridley, Cal., April 21, from septicemia, following an accident, after a long illness, aged 59.

H. T. Breckbill, M.D. Pulte Medical College, Cincinnati, 1878, died suddenly while walking from his office to his house in Columbus Grove, Ohio, April 22, aged 60.

Roswell E. James, M.D., died at his home in Kalamazoo, Mich., April 23, from internal hemorrhage, after an illness of two days, aged 68.

Richard R. Breisch, M.D. Jefferson Medical College, Philadelphia, 1881, retired from practice, died at his home in Ringtown, Pa., April 22.

Charles E. Reese, M.D. Jefferson Medical College, Philadelphia, 1855, died at his home in Lowndesboro, Ala., April 25, after a short illness.

William W. Miller, M.D. Western Pennsylvania Medical College, Pittsburg, died at his residence in that city, April 16, from pneumonia.

Edwin B. Reed, M.D. University of Pennsylvania, Philadelphia, died at Little Togus, Me., April 24, from dropsy, aged 65.

D. J. Grandstaff, M.D. Louisville Medical College, 1878, died at his home in Mason, Texas, from exposure, April 22.

Jared M. Newell, M.D. University of Buffalo, 1873, died at his home in Rochester, N. Y., April 23, aged 82.

Robert M. Morgan, M.D., died at his home in Decherd, Tenn., April 25, from heart disease, aged 70.

State Boards of Registration.

Rhode Island Report.—Dr. Gardner T. Swarts, secretary of the Rhode Island State Board of Health, reports the examination held at Providence, April 2 and 3, 1903, as follows: Number of subjects examined, 7; total questions, 70; percentage required to pass, 75; written examination; total examined, 14; passed, 9; failed, 5.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
203	R.	Illinois Medical College	1903	81.4
204	R.	Yale University, Medical Dept.	1903	*86.8
205	R.	Dartmouth Medical College	1900	79.0
212	R.	Dartmouth Medical College	1903	79.6
206	R.	University and Bellevue Med. Coll.	1899	82.0
208	R.	Harvard Medical School	1876	76.8
209	R.	Harvard Medical School	1900	81.1
210	R.	Coll. Phys. and Surgs., Baltimore	1902	75.0
216	R.	Leonard Medical College	1902	78.6

FAILED.

207	R.	Illinois Medical College	1902	67.3
211	E.	Georgia Coll. Ecl. Med. and Surg.	1895	67.6
213	R.	Tufts Medical College	1903	*74.2
214	R.	University of Vermont, Med. Dept.	1898	72.1
215	R.	Baltimore Medical College	1893	58.2

* Undergraduates, about to receive diplomas.

Minnesota Report.—Dr. C. J. Ringnell, secretary of the Minnesota State Board of Medical Examiners, reports the examination held at St. Paul, April 7 to 9, 1903, as follows: Subjects, 12; questions, 95; percentage required, 75; written examination; number examined, 23; passed, 20; failed, 3.

PASSED.

Candidate.	Sch. of Pract.	College.	Year Grad.	Per Cent.
2155	R.	University of Michigan	1898	84.0
2156	R.	University of Pennsylvania	1883	77.9
2170	R.	University of Maryland	1900	77.4
2158	R.	Medico-Chirurgical College, Phila.	1902	82.8
2159	R.	McGill University	1900	87.3
2160	R.	Coll. of Phys. and Surgs., Milwaukee	1902	*75.0
2163	R.	Coll. of Phys. and Surgs., Chicago	1902	†77.6
2167	R.	Coll. of Phys. and Surgs., Chicago	1902	†76.7
2168	R.	Coll. of Phys. and Surgs., Chicago	1902	*75.0
2164	R.	Coll. of P. and S., Keokuk, Iowa	1900	75.0
2161	R.	Rush Medical College, Chicago	1901	75.7
2169	R.	Rush Medical College, Chicago	1901	83.1
2166	R.	Kansas City Medical College	1899	*76.1
2171	R.	Kansas City Medical College	1901	84.1
2172	R.	Hamline University	1902	80.8
2173	R.	Hamline University	1902	77.5
2174	H.	Hahnemann Med. Coll., Chicago	1895	77.1
2175	R.	Dartmouth (N. H.) Medical College	1902	78.8
2176	R.	Vanderbilt University, Tenn.	1900	78.3
2177	R.	Laval University	1902	83.4

FAILED.

2157	R.	Hamline University	1902	71.3
2162	R.	Marion Sims Med. Coll., St. Louis	1902	‡63.5
2165	R.	Sioux City College of Medicine	1896	+64.5

* Second examination.
† Third examination.
‡ Failed four times.
+ Failed twice.

Association News.

New Members.

New members for the month of April, 1903:

ALABAMA.

Ellis, J. L., Dothan.
Parker, E. C., Montgomery.
Mertins, Paul S., Montgomery.
Henderson, W. T., Mobile.
Lull, Cabot, Birmingham.
Jenkins, J. F., Coleanor.
Campbell, Douglas G., Mobile.
Kennedy, J. O., Kennedy.
Parke, T. D., Birmingham.
Atkins, Jas. M., Troy.
Arnold, L. W., Florence.

ARKANSAS.

Dickson, H. N., Jamestown.
Stewart, W. S., White Oak.
Morrow, F. R., Green Forest.

CALIFORNIA.

Farrow, E. J., San Francisco.
Eaton, G. L., San Francisco.
Steinwand, O. W., Selma.
Cumming, H. F., Angel Island.
Van Dyke, E. C., San Francisco.
Jones, L. F., Tuolumne.

COLORADO.
Spaulding, W. F., Greeley.
Espey, J. G., Trinidad.
Robinson, G. W., Trinidad.
Blackman, A. A., Colorado Sprgs.

CONNECTICUT.
Miller, G. R., Hartford.
Anderson, H. G., Waterbury.
Murphy, W. G., East Hartford.

DISTRICT OF COLUMBIA.
Perry, G. N., Washington.
Prentiss, D. W., Washington.

FLORIDA.
Fernandez, J. D., Jacksonville.

GEORGIA.
Thornton, H. E., Hartwell.
Sikes, J. A. B., Iron City.
Wright, T. R., Augusta.
Corry, J. A., Barnesville.
Kenyon, O. T., Dawson.
Moore, N. McH., Augusta.
Dean, R. H., Jacksonville.

IDAHO.
Bibby, S. E., Grangeville.
Allen, O. J., Custer.

ILLINOIS.
Neale, R. A., Chicago.
Eberhart, N. M., Chicago.
Mastin, J. G., Chicago.
Ryerson, E. W., Chicago.
Pirosh, Berthold, Chicago.
Rice, May C., Chicago.
Hecht, D'Orsay, Chicago.
St. Clair, F. P., Chicago.
Williams, W. C., Chicago.
Wright, S. E., Chicago.
McKwen, E. L., Chicago.
Snyder, K. F., Freeport.
Kercher, W., Freeport.
Wilson, W. H., Kankakee.
Hagler, A. Lee, Springfield.
Horner, Clyde F., El Paso.

INDIANA.
Cannon, G. H., New Albany.
Weathers, J. F., New Albany.
Potter, Theo., Indianapolis.
Bailey, G. D., Spiceland.
Lynch, J. Y., Rosedale.

IOWA.
Fisher, E. E., Rodney.
Burge, A. J., Iowa City.
Spearman, F. S., Hawkeye.
Martin, D. T., Pomeroy.
Frank, C. S., Epworth.
Castello, W. E., Zwingle.

KANSAS.
Barnett, B. M., Rosedale.
Smith, A. J., Leavenworth.
Alkire, H. L., Topeka.
Fear, J. C., Waverly.

KENTUCKY.
Daugherty, C. G., Paris.
Bruner, B. L., Hardyville.
Yazell, W. S., Maysville.
Manning, H. R., Louisville.
Bohannon, J. G., Greenville.
Moren, J. J., Louisville.
McClure, W. B., Lexington.
Cartwright, F. D., Bowling Green.
Mason, H. M., Hazel.
Robins, Vernon, Louisville.
Jenkins, G. R., Louisville.
Moneyhon, T. J., Augusta.
Abell, Irvin, Louisville.
Phythian, J. L., Newport.

LOUISIANA.
Butterworth, W. M., N. Orleans.
Campbell, R. C., Shreveport.
Holt, Jos., New Orleans.
McElhaney, P. A., New Orleans.
Brosnan, D. S., New Orleans.
Calhoun, W. W., New Orleans.
Pray, A. A., New Orleans.
Pothier, O. L., New Orleans.
Oechsner, Herman, New Orleans.
French, T. T., New Orleans.
Cazenavette, L. L., New Orleans.
Castellanos, J. J., New Orleans.
Caire, Arthur, New Orleans.
Szabary, Latzi, New Orleans.
Richard, J. I., New Orleans.
Noto, Cosimo, New Orleans.
Landauer, S. C., New Orleans.
Parker, G. P., New Orleans.
Seemann, W. H., New Orleans.
Richards, W. T., New Orleans.
Mandeville, W. B., New Orleans.
Clark, S. M. D., New Orleans.
DeGrange, J. T., New Orleans.
Keitz, Gustav, New Orleans.
Hale, S. E., New Orleans.
Wolfe, J. T., New Orleans.
Hoefeld, A. O., New Orleans.
Siekmann, I. F., New Orleans.
Wolff, H. D., New Orleans.
Kendall, W. S., Ruston.
Roberts, R., Ruston.
McBride, J. S., Ruston.
Quirk, Wm. A., Evergreen.
Biggs, O. A., Columbia.
Hagaman, W. F., Norwood.
Hawkins, R. G., Palmetto.
Scott, J. J., Shreveport.
Knolle, W. H., New Orleans.
Barker, W. E., Plaquemine.
Bellinger, P. L., Waterproof.
Edgerton, C. E., Coushatta.
Mayer, F. J., Scott.

MARYLAND.
Watson, W. T., Baltimore.
Theobald, Sam'l, Baltimore.

MASSACHUSETTS.
Lynch, Chas. F., Springfield.
Pease, E. A., Boston.
Tucker, S. Chase, Peabody.

MICHIGAN.
Elwood, C. R., Menominee.
Noer, Peter J., Menominee.
Rowley, A. S., Traverse City.
Robinson, D. E., Jackson.
Knight, F. J., Olivette.
Warner, J. H., Detroit.
Bonning, Carl, Detroit.
Strong, Martha C., Jackson.
Donald, W. McL., Detroit.
Suttle, Geo., Detroit.

MINNESOTA.
Hart, M. J., LeRoy.
Kilbride, J. S., Canby.
Golberg, Martin Luther, Twin Valley.
Miller, W. A., New York Mills.
Christenson, C. R., Starbuck.

MISSISSIPPI.
Johns, W. A., Corinth.
Brister, S. L., Greenwood.
Wood, G. H., Batesville.
Stennis, I. E., McComb City.
Davis, W. W., Ora.
Wiss, Rosa D., Meridian.
Reynolds, W. W., Meridian.
Crigler, L. W., Columbus.
Howard, E. F., Vicksburg.
Plunkett, J. H., McComb City.

MISSOURI.
Calvert, W. J., St. Louis.
Boyson, J. P., St. Louis.
Johnson, H. McC., St. Louis.
Cummings, H. J., St. Louis.
Bartlett, Willard, St. Louis.
Gross, J. H., St. Louis.
Riesmeyer, L. T., St. Louis.
Stewart, Floyd, St. Louis.
Buckwalter, J. C., St. Louis.
Bishop, F. L., St. Louis.
Parker, O. H., Kansas City.
Thrailkill, E. H., Kansas City.
Moss, Woodson, Columbia.
Polson, John, Laclede.
Buck, U. G., Rothville.

NEBRASKA.
Tornholm, Frank, Ashland.
Cleveland, Luella S., Shelton.
Raines, R. F., Red Cloud.

NEW JERSEY.
Lee, S. G., East Orange.

NEW MEXICO.
Henry, J. A., Albuquerque.

NEW YORK.
Starke, G. H. E., New York City.
Tuttle, G. A., New York City.
Schlegel, G., New York City.
Simmons, J. G., New York City.
Simmons, C. E., New York City.
Peck, C. H., New York City.
Lisle, J. de, New York City.
Jackson, C. W., New York City.
Foster, G. V., New York City.
Smith, A. A., New York City.
Kuhl, Henry, New York City.
Ward, Jr., G. G., New York City.
Elebash, C. S., New York City.
McCoy, John, New York City.
Saril, H. D., New York City.
Tracy, I. O., New York City.
Lewinthal, D. C., New York City.
Schondelmeier, C. T., Brooklyn.
Fuhs, Jacob, Brooklyn.
Thelberg, Elizabeth R., Poughkeepsie.
Robertson, Victor A., Brooklyn.
Northway-Meyer, Oscar, Monticello.
Slade, Mary, Castile.
Payne, A. E., Riverhead.
White, A. D., Ithaca.
Armstrong-Hopkins, Saleni, Tyre.
Wieber, Adolph, Brooklyn.
Steele, Wellington G., Mongaup Valley.
Mahady, C. R., Rome.
Wheelock, A. A., Elizabethtown.
Mears, John Bowdoin, Buffalo.

NORTH CAROLINA.
Banner, C. W., Greensboro.
Pendleton, A. S., Henderson.
Anderson, T. E., Statesville.

OHIO.
Woodson, O. M., Wellston.
Spohr, Carl Louis, Columbus.
Hendershot, B. S., New Philadelphia.
Jones, E. J., Oak Hill.
Felker, Gertrude, Dayton.
Everhard, Eleanora S., Dayton.
Hermann, G. A., Hamilton.

OREGON.
Henderson, Thos. M., Pendleton.
Spencer, W. O., Huntington.

PENNSYLVANIA.
Van Sickle, F. L., Olyphant.
Wakefield, A. N., Johnstown.
Porter, John, McKeesport.
Bessey, Herman, Scranton.
Norris, G. W., Philadelphia.
Osthelmer, Maurice, Philadelphia.
Zeutmayer, Wm., Philadelphia.
McCurdy, J. R., Pittsburg.
Brenneman, R. E., Pittsburg.
Yagle, J. L., New Freedom.
Koontz, D. M., New Kensington.

SOUTH CAROLINA.
Harmon, S. E., Columbia.

TENNESSEE.
Hudson, Alberto, Nashville.
Blackburn, E. C., Memphis.
Holder, Eugene Michel, Memphis.
McKinney, Richmond, Memphis.
McLean, J. L., Memphis.
Henning, D. M., Memphis.
Rowland, J. F., Nashville.
Cooke, A. B., Nashville.
Cullom, M. M., Nashville.
Stephens, J. Bunyan, Nashville.
Wood, E. G., Nashville.
Brower, Chas., Nashville.
Smith, Larkin, Nashville.
Anderson, W. B., Nashville.
Brew, Jas., Nashville.
Anderson, W. E., Chattanooga.
Abernathy, G. L., Hill City.
Cochrane, H. P., Franklin.
Pitts, Rufus, Murfreesboro.
Rees, H. C., Murfreesboro.
Porter, O. J., Columbia.
Pillow, Robert, Columbia.
Hill, J. E., Memphis.

TEXAS.
Torbett, J. W., Martin.
Buie, John, Hillsboro.
Barnitz, H. D., San Antonio.
McDaniel, A. S., San Antonio.
Sheimire, J. B., Dallas.
Yates, J. D., Jasper.
Thompson, J. H., El Paso.
Haskell, Pliny F., Keene.
Hertzberg, E. F., San Antonio.
Barber, Lyman A., Ft. Worth.
Scott, Chas. T., El Paso.
Smith, M., Sulphur Springs.

VIRGINIA.
Old, W. L., Norfolk.

WASHINGTON.
Holt, Chas. L., Whatcom.
Case, C. E., Tacoma.
Foster, M. M., Pt. Townsend.

WEST VIRGINIA.
Hansford, J. H., Crown Hill.
Young, H. H., Charleston.
Peck, Nelson, Clarksburg.

WISCONSIN.
Carr, Bernard J., Beloit.
Moffatt, Henry L., Puy Sippi.
Lemmer, G. N., Spooner.
Ritchie, G. A., Appleton.

Miscellany.

The Formula of Disease.—An exchange quotes the formula of disease as

$$D = \frac{M V N}{R}$$

D represents the disease; M the microbe, multiplied by V, its virulence, and N its numbers; divided by R, the resisting powers of the organism. We would suggest, as an improvement, to multiply the resisting powers of the organism by P, the wise guidance of the physician, which immeasurably reduces the quotient of the disease as expressed in the first formula. The laity have the impression that the physician alone fights the disease. They seldom or never realize that the ablest physician can work only through the resisting powers of the organism, and if these are defective he is baffled at every turn and all his efforts are fruitless; he can not save the patient any more than the pilot can save the vessel if it is leaking too badly. The pilot takes the helm and steers the ship past the shoals and rocks by the shortest route to the dock, inspiring and aiding the officers and crew to do their utmost to keep it afloat a little longer, but if the ship is too badly scuttled it will sink before reaching the dock, in spite of all his knowledge and skill. If the public once realized that the same is true of the physician, they would cease to expect the impossible of him, and the platform on which charlatans and Eddyites build would be cut from under them with the general recognition of the truth in the amended formula:

$$D = \frac{M V N}{R + P}$$

Phototherapy in Neurasthenia.—Joire has found that red light has a marked beneficial action in neurasthenia. It soothes the nerves; increases the vitality and appetite; improves digestion, and the nutrition in general seems to appreciate the benefit. He has been applying it for this purpose on a large scale during the past year, and lauds it highly in his communication on the subject to the "Nord Méd.," ix, No. 181.

THE NEW ORLEANS SESSION

RECORD-BREAKING ATTENDANCE.

New Orleans Session Attended by Large Delegations from All Parts of the Country.

The fifty-fourth annual session of the American Medical Association at New Orleans has proven a great success in point of attendance and in scientific interest. Reports by telegraph received as we go to press predict that this will be the largest session ever held. At the close of the registration department Wednesday night, 1,941 members had registered. This was at the close of the second day, and, although most of those present at the annual sessions register before the end of the second day, there are always a number who register later. It is, therefore, probable that the New Orleans session will be the largest ever held. It will be remembered that at the Atlantic City session in 1900 there was a total registration of 2,019, at St. Paul 1,806 and at Saratoga 1,425. The New Orleans session needs only 79 more registrations in order to break the record. All parts of the United States are represented.

ARRANGEMENTS SATISFACTORY.

Chief Hotels Crowded but Ample Accommodation Elsewhere. Weather is Fine.

It was feared last week that the temperature might interfere with the pleasure of those in attendance, but this fear has not been realized, for the weather is delightful and no complaint is heard in this regard.

The Committee of Arrangements, whose efficient chairman is Dr. Isadore Dyer, are being praised for the excellent way in which their work has been done, and while there is some crowding in the leading hotels, ample accommodations have been provided for all the visitors.

HOUSE OF DELEGATES MEETS.

Busy Meetings Held Daily—The Reports of Trustees and Officers Read.

The House of Delegates met in preliminary informal session Monday afternoon and evening and transacted considerable business. The meetings of Tuesday and Wednesday have been very busy ones and a large amount of business has been transacted.

Labor on the Code of Ethics.

The question of the Code of Ethics and its revision was met by referring the matter to a committee composed of one representative from each state represented in the House of Delegates, together with the original special Committee on Revision of the Code of Ethics. This enlarged committee held several meetings and carefully and thoroughly considered the matter.

EXCELLENT SCIENTIFIC PROGRAM.

Sections Have Large Attendance and Much Interest Is Shown.

The scientific part of the convention is very well organized, and almost all of the sections started out with prospects of valuable series of meetings. The attendance at the section meetings is unusually good and excellent work is being done.

The publication of the scientific proceedings of the New Orleans session begins in this isuue with the address of the President, Dr. Frank Billings, on "Medical Education in the United States." This was delivered at the first general meeting, in Tulane Theater, Tuesday, May 5, at 11 a. m. The same day, at 7:30 p. m., Dr. A. F. Jonas, Omaha, delivered the annual Oration on Surgery, taking as his subject "Cancer and Immunity." This oration appears in full in this issue.

Wednesday evening, at 7:30, Dr. J. M. Anders, Philadelphia, gave the Oration on Medicine. This also appears in full in this issue, the subject being "Social Conditions in America in Their Relation to Medical Progress and Disease."

SECTION PAPERS READ.

The Great Problems of the Art of Healing Are Discussed.

The good work done by the officers of the various sections in preparing their programs has been followed up by the co-operation of those listed to read papers. The publication of the papers read in the sections will commence in THE JOURNAL, May 16, and will be pushed rapidly. Some of the papers read in the Section on Surgery and Anatomy, the Section on Cutaneous Medicine and Surgery and the Section on the Diseases of Children will be printed in full in next week's issue.

Section on Hygiene and Sanitary Science.

The important subject of "Vital Statistics" was the subject of a spirited discussion in the Section on Hygiene and Sanitary Science. Dr. H. M. Bracken, chairman of the section, in his address in opening the program, emphasized the need of uniformity in this regard, and he was followed by Dr. Cressy L. Wilbur of Lansing, Mich., who urged co-operation in vital statistics' gathering. Dr. Wilbur said that those who use vital statistics most ought naturally to be the ones who should say what is wanted in those statistics and how they should be arranged to be of the most service. Then, when it is known just what is wanted, the general practitioner should be educated to exactness in reporting deaths, for it is he who reports the most of the deaths.

The section agreed on the importance of this endeavor to secure uniformity of registration of vital statistics and general agreement in methods and passed a resolution endorsing this plan. The exact wording of the resolution is not given in our telegraphic report. It will be given in a later issue.

Section on Surgery and Anatomy.

Dr. James E. Moore, Minneapolis, chairman of the Section on Surgery and Anatomy, chose to present as the theme of his address before that section, "A Plea for Exploratory Operations." He urged that modern aseptic methods in the hands of experienced surgeons made an opening into the body justifiable for the sole purpose of determining just what condition was present. He made the plea with carefulness, lest he should give any encouragement to those who "rush in where angels fear to tread," and laid emphasis on the fact that most exploratory operations should be done only by the able surgeon, who is fully competent to know indications, to recognize conditions found and to immediately repair anything needing attention.

Prof. Adolph Lorenz was one of the distinguished foreigners present at the meetings of this section. He was introduced to the audience and made a few remarks.

Section on Diseases of Children.

Dr. John C. Cook, chairman of the Section on Diseases of Children, had copies of a little pamphlet for distribution to the members of that section in connection with his chairman's address, which was on the de-

V 19

velopment and care of children. This pamphlet was a catalogue of the various articles on pediatric subjects that have appeared in American and foreign medical publications during the past year.

PHYSICIAN ON CANAL COMMISSION.

President Roosevelt Asked to See that Health Matters at the Isthmian Canal are thus Supervised.

A resolution was unanimously adopted Wednesday urging the President to name a reputable medical man on the Isthmian Canal Commission in order to insure energetic sanitary control and thereby avoid repetition of the enormous loss of life from preventable disease.

VIVISECTION.

Association Praises Work of Legislation Committee and Makes Memorial to Congress on the Subject.

The action of the Committee on Legislation in securing the defeat of the anti-vivisection bill in Congress was indorsed, and a resolution was adopted memorializing Congress to give no further attention to the subject.

OTHER NEW ORLEANS MEETINGS.

Association of American Medical Colleges Meets and Raises Medical College Standard.

At the annual meeting in New Orleans, May 4, the report of the committee on requirements for admission to medical colleges was adopted, after amendment, by the Association of American Medical Colleges. It now requires four full years of work in the high school or its equivalent for eligibility to admission in a medical college.

The American Association of Medical Editors was also in session, and elected Dr. Sajous of Philadelphia president.

The Southern Medical College Association, also meeting at New Orleans, re-elected Dr. Christopher Tompkins of Richmond president. It will meet in Birmingham, Ala., next year.

FULL REPORT OF THE SESSION.

Minutes to Appear Next Week—Proceedings of House of Delegates.

As stated above, the publication of section papers will begin in THE JOURNAL next week. No attempt is made to give an account of the session in this issue, owing to the fact that THE JOURNAL goes to press on Wednesday. It is felt that the readers will appreciate receiving their copies at the usual time this week instead of waiting for an issue delayed for further telegraphic reports. Next week's issue will contain a full account of the New Orleans session.

The Board of Trustees and the Committee on Prophylaxis of Venereal Diseases made their reports to the House of Delegates. These appear in full below.

Revised Code Adopted—Atlantic City Next Session.

By telegram Thursday afternoon: The revised Code was unanimously adopted amid great enthusiasm. Atlantic City was selected as the meeting place for 1904.

Report of the Board of Trustees of the American Medical Association for the Year 1902.

To the Officers, Members and House of Delegates of the American Medical Association:

Your Board of Trustees, in complying with the requirements of your Constitution and By-Laws, beg leave to submit the following as our annual report.

Last year we presented you as Exhibit "A" the Auditor's "Balance Sheet" made from the books of the Association, including those of THE JOURNAL office, and of your Treasurer. This year, as Exhibit "A," we give you the cash receipts and expenditures taken from the monthly reports of THE JOURNAL office; Exhibit "B," your Treasurer's report, and to our report we append as Exhibit "C" the Auditor's "Balance Sheet."

RECEIPTS.

1902. Journal Office.	Dr.
Jan. 1—Cash on hand	$ 522.10
Dec. 31—Cash from:	
Advertisements	69,340.55
Subscriptions	41,570.48
Reprints	3,115.00
Sales	1,268.30
Buttons	336.00
Binding	120.30
Jobbing	2,126.75
Electros	131.38
Postage	49.42
Section reports	294.00
Sundries	20.65
Interest	3.57
Loss and gain account	43.80
Requisition on Treasurer	11,000.00
Total receipts	$130,021.30

DISBURSEMENTS.

1902. Journal Office.	Cr.
Dec. 31, by amount paid for:	
Second class postage	$ 8,595.63
Stamps	3,701.89
Salaries	13,966.60
Pay roll	32,350.05
Rent	1,633.36
General expenses	2,282.46
Electric power	969.49
Traveling expenses	160.30
Commissions on subs. and adv.	5,978.61
Journal stock	34,362.00
Miscellaneous stock	2,930.76
Binders	61.00
Binding	441.15
Building supplies	34.79
A. M. A. express charges	185.97
Sundries	8.55
Machinery supplies	795.81
Electros	1,017.17
Type	247.41
Ink	1,732.65
Metal account	247.31
Buttons	341.34
Exchange	228.50
Collection fees	55.30
Subscriptions refunded	77.80
Advertising	6.66
Office furniture, etc.	222.20
Press room furniture, etc.	13.50
Electric motor	122.50
Postmaster Inc. dep.	15.00
Carried to loss and gain	235.00
Editorial news and rept.	5,740.70
Transfers to Treasurer	10,706.83
Balance cash on hand	535.01
Total credits	$130,021.30

EXHIBIT "B."

H. P. Newman, Treasurer, in account with American Medical Association.

1902	Dr.
Jan. 1—Cash on hand, per report	$ 30,760.48
March 1—Amount from sale of Government Bonds for value $10,000.00	11,075.00
June 1—Registration fees, Saratoga meeting	3,375.00
Nov. 1—Int. on $14,000.00 Chicago School Bonds	560.00
Dec. 31—Membership fees for year exclusive of registration at Saratoga	55,805.00
Dec. 31—Amount from rents, A. M. A. property	1,464.65
	$103,040.13

DISBURSEMENTS.

1902. Real Estate Account.		
To amount paid for:		
Five houses and lots	$42,646.96	
Survey of property	50.00	
Building Journal office	30,350.00	
Architect's fees	1,500.00	$ 74,546.96
Betterments Account.		
Cleaning and repairing houses	$ 42.15	
Water tax	7.24	
Allowance, rents, obstructing street	214.50	
Commissions on rents	10.40	
Repairs on furnaces	40.00	
Painting on houses	8.00	
Plumbers' account	3.95	
Photo. A. M. A. property	15.50	$341.74
Expenses of Treasurer's Office.		
Honorarium Treasurer	$ 1,000.00	
Treasurer's clerk	962.00	
Sundries for office	76.53	
Premium on Treasurer's bond	100.00	
Premium on clerk's bond	50.00	
Postage, Treasurer's office	610.00	

Safe for Treasurer	$ 24.00	
Nat. Deposit Co., trustee of bonds.	10.00	
Safety box rent	10.00	$ 2,842.53

General Expenses.

Auditing books	$ 200.00	
Attorney's fees	370.25	
Expenses, trustees, Chicago meet..	550.88	
Trustees' expense account	21.60	
Charges on drafts	48.70	
Card index	4.37	
Protest on draft	3.10	
Cutting and perforating cards	1.15	
Telegrams	1.06	
Certificates, 1903	75.00	
Polk's Directory	10.00	
Dues refunded	30.00	
C. M. Taylor messenger service	14.80	$ 1,330.91

Expenses Saratoga Meeting.

Expenses trustees and officers	$ 1,247.34	
Sal. Secy. Board of Trustees	50.00	
Printing acct., Saratoga meeting..	6.00	
Stenographers, Saratoga meeting.	1,474.41	
Registration cards, Saratoga	2.27	
Special R. R. agt	23.00	
Badges for delegates	36.00	
Exp. Pathologic Exhibit	375.30	$ 3,214.32

Expenses of Committee.

To amount paid for:		
Exp. Committee on Reorganization	$ 360.40	
Exp. Committee on Arrangements.	55.79	
Exp. Com. on Local Registration.	263.54	
Exp. Committee on Legislation	661.70	
Committee on Transportation	36.16	$ 1,377.59

Machinery Account.

Folder Journal office	$ 2,148.55	$ 2,148.55
Subscriptions transferred		$ 350.00
On requisition		11,000.00
Balance cash on hand		$ 5,887.53
		$103,040.13

SUMMARY.

Dec. 31, 1902—		
Bal. cash in hands of Treas	$ 5,887.53	
Bal. cash in hands, Journal office.	535.01	
Chicago City School Bonds, par value $14,000.00, worth	15,168.13	
Amount invested in real estate	74,546.96	
Inventory acct. shown by auditors	35,683.53	$131,821.16
Dec. 31, 1901—		
Assets as shown by auditors	$87,839.91	
Dec. 31, 1902—		
Miscellaneous account payable	3,840.69	
Balance net profit, 1902	40,140.56	$131,821.16

A comparison of this summary with the statement made at the Denver meeting will show the great growth made financially by the Association in the short period of five (5) years.

At Denver your Treasurer reported total cash received from members for the year, $32,200.00.

Receipts for 1902 from same sources, $59,180.00, showing a gain of $26,980.00, indicating but little short of twice as many members.

The total amount of cash in your Treasurer's hands was $17,092.85, which included the then reserve for building purposes of $3,000.

The tables above show cash, etc., on hand, $21,590.67, being a gain in cash of $4,497.82, and a building on which we have spent $74,546.96, a gain of 71,546.96 over the reserve funds.

Our total JOURNAL business, including cash in hand, as shown by the report of the Trustees for 1898, was $47,140.07.

This year the books of THE JOURNAL office show in cash $130,021.30, which amount includes $9,000 less in requisitions, but, not considering that, the face of the books show a gain of $82,891.23 in business over 1898, the gain being almost double the total business reported that year.

Last year (1902) report for year 1901 showed net assets $87,839.91.

This year, deducting balance due on property, our net assets are as follows:

Real estate, etc.		$ 74,546.96
Furniture and fixtures		2,351.70
Machinery		17,174.40
Chicago City School Bonds		15,168.13
Inventories, paper, ink, etc.		2,407.67
Bills receivable		901.67
Accounts receivable (earned)		12,848.09
Cash on hand and in bank		6,422.54
Total, 1903 report, for year 1902		$131,821.16
Excess over 1902 report		$ 43,981.25
Less miscellaneous account payable		3,840.69
Net profit		$ 40,140.56

REAL ESTATE.

1902—		
Amount paid for house and lot	$42,646.96	
Amount contract in full for Journal office	40,018.30	$ 82,665.26
Amount paid for houses and lot..	$42,646.96	
Amount paid on building account..	31,900.00	
	$74,546.96	
Dec. 31, 1902—Balance due	8,118.30	$ 82,665.26

EXHIBIT "C."

JAN. 27, 1903.

E. Fletcher Ingals, Esq., American Medical Association, Chicago.

DEAR SIR:—In accordance with your instructions, we have examined the books of THE JOURNAL of the above Association and such records as were available in the office of its Treasurer, and we beg to hand you herewith statements of: Assets and liabilities as at Dec. 31, 1902; profit and loss account for the year ending Dec. 31, 1902.

We have examined vouchers or other evidence for all cash disbursements and have verified the cash in bank as shown by the above statements with statements furnished by the banks.

We found the books of THE JOURNAL to be neatly and accurately kept.

Yours faithfully,
THE INVESTORS' AUDIT COMPANY.
(Signed) E. M. Mills, Manager.

AMERICAN MEDICAL ASSOCIATION.

BALANCE SHEET, DEC. 31, 1902.

ASSETS.

Real estate and buildings		$ 82,665.26
Machinery		17,174.40
Furniture and Fixtures:		
Press room	$ 788.30	
Office of Journal	1,523.90	
Office of treasurer	39.50	2,351.70
Chicago city school bonds, par value	$14,000.00	15,168.13
Inventories of paper, ink, type, metal, binders and buttons		2,407.67
Bills receivable		901.67
Accounts receivable	$39,197.70	
Less reserve for unearned advertising	26,349.61	12,848.09
Cash in bank and on hand		6,422.54
		$139,939.46

LIABILITIES.

Accounts payable:		
For new building	$ 8,118.30	
Miscellaneous	3,840.69	$ 11,958.99
Surplus:		
Balance as to Jan. 1, 1902	$87,839.91	
Add net revenue for the year as per account annexed	40,140.56	127,980.47
		$139,939.46

AMERICAN MEDICAL REVENUE ACCOUNT FOR THE YEAR.

PUBLICATION EXPENSES.

Inventories of paper, ink, type and metal, Jan. 1, 1902	$ 2,550.03	
Purchases of paper, ink, type and metal	41,073.99	
Pay rolls	32,350.05	
Electros	940.76	
News reporting and editorials	5,770.55	
Binding	149.00	
Machinery repairs and supplies	723.36	
Advertising and sub. commissions	5,750.85	
Postage, first and second class	11,805.95	
Salaries	13,066.60	
Rent	1,633.36	
Power	969.49	
General expenses	3,474.34	
Traveling expense	160.30	
Exchange	228.50	
Collection fees	422.55	
Office jobbing	660.90	
Building supplies	34.79	
Advertising transportation	736.05	
Interest and Discount	1,050.47	
Bad debts and miscellaneous losses	562.00	
Depreciation of machinery, furniture and fixtures, estimated	2,165.10	$127,178.99

GENERAL EXPENSE.

Treasurer's honorarium	1,000.00
Expenses Saratoga meeting	4,821.73
Expenses of committee on legislation	661.70
Premium on treasurer's bond	150.00
Auditing accounts	200.00
Salaries treasurer's assistants	962.00
Postage	610.00
Salary of secretary board of trustees	50.00
Miscellaneous expenses	1,720.21
Membership commissions	264.70
Net revenue for the year ending Dec. 31, 1902	40,140.56
	$177,759.79

ASSOCIATION, ENDING DEC. 31, 1902.		
Membership dues	$55,455.00	
Subscriptions	30,863.65	
Advertisements	76,046.83	
Registration fees—Saratoga meeting	3,375.00	
Rents of association properties	1,464.65	
Reprints	3,008.55	
Miscellaneous sales	1,511.00	
Jobbing	2,733.38	
Buttons	149.71	
Binders	75.90	
Interest on bonds	560.00	
Profit on sale of government bonds	262.50	
Inventories of paper, ink, type and metal, Dec. 31, 1902	2,253.62	$177,759.79

COMPARISONS.

A comparison of the tables presented from the monthly report, "A" and "B," with the Auditor's report, shows apparent but not real differences, which have arisen from the system of bookkeeping which has been in vogue up to this time, but will not appear in the future. It will be sufficient to note a few points.

On the last page of the Auditor's report, "membership dues" is given as $55,455, while in Exhibit "B" it is given as $55,805. This arises from the fact that the Treasurer charges himself with $350, which he afterwards turned over to THE JOURNAL office as subscriptions, and when this $350 is deducted it leaves "membership fees" as given in Auditor's report. Again, on the same page of Auditor's report you note subscriptions $30,863.65, while in Exhibit "A" this same item is given as $41,570.48, but this amount includes an item of $10,706.83 collected by THE JOURNAL office, and afterwards passed to "membership dues," and when it is deducted we find the balance as shown by Auditor's report, $30,863.65, but it was necessary to enter, as shown in Exhibit "A," to keep entries correct, and you find in the credit side of "A" the amount, $10,706.83. You find on the same sheet of the Auditor's report "advertisements" $76,046.83, whilst Exhibit "A" shows only $69,340.55, the difference between the two, $6,706.28, being the amount earned on contracts not expired, and, hence, not collected at that time. Other items differ because of different combinations, but the result, as shown by the net profit, is the same.

The changes made in bookkeeping, by which all collections will be made through THE JOURNAL office, except interest on investments, will prevent all the difference to which reference has been made, except when the Auditor's report combines items differently from the way in which they are presented in our monthly reports. The change thus made will result in your Treasurer being the custodian of your surplus funds, and also of all invested funds, and the interest arising therefrom, and not a collector of anything. This consolidation of work and change in bookkeeping will save to the Association clerks' wages in the Treasurer's office.

AMERICAN MEDICAL ASSOCIATION.

Comparative statement for the years from 1895 to 1902 (inclusive):

1895—Membership fees for the year	$19,760		
Registration fees at Baltimore meeting	4,610		$23,370
1896—Membership fees for the year	$23,130		
Registration fees at Atlanta meeting	2,945		$26,075
1897—Membership fees for the year	$24,620		
Registration fees at Philadelphia meeting	7,580		$32,200
1898—Membership fees for the year	$28,945		
Registration fees at Denver meeting	4,815		$33,760
1899—Membership fees for the year	$32,840		
Registration fees at Columbus meeting	6,125		$38,965
1900—Membership fees for the year	$40,550		
Registration fees at Atlantic City meeting	6,150		$46,700
1901—Membership fees for the year	$46,505		
Registration fees at St. Paul meeting	5,050		$51,555
1902—Membership fees for the year	$55,805		
Registration fees at Saratoga meeting	3,375		$59,180
Dec. 31, 1901—Number of members	11,121		
Dec. 31, 1902—Number of members	12,540		1,419
Dec. 31, 1901—New members during the year	1,722		
New members at St. Paul	232	1,954	
Dec. 31, 1902—New members during the year	1,962		
New members at Saratoga	109	2,071	117
Dec. 31, 1901—Number of discontinuances for the year	674		
Dec. 31, 1902—Number of discontinuances for the year	547		127
Number of three-year delinquents Jan. 1, 1902			169
Number of three-year delinquents Jan. 1, 1903			159
Number of two-year delinquents Jan. 1, 1902			322
Number of two-year delinquents Jan. 1, 1903			298
Number of one-year delinquents Jan. 1, 1902			1,293
Number of one-year delinquents Jan. 1, 1903			1,513
Dec. 31, 1901—Membership fees paid during year	$51,555		
Dec. 31, 1902—Membership fees paid during year	58,800		$7,245
Cash collected during January, 1902	$17,625		
Cash collected during January, 1903	21,485		$3,860

ADVERTISING.

The amount actually earned from avertising during the year was $76,046.83, an increase of $13,813.47 over 1901.

Table 1, enclosed, shows comparative statement of the increase in advertising, cash collections, for the past five years, which indicates a gain of $9,898.73 for 1902 over 1901. The table represents actual collections, and is given only for a comparative basis.

During 1902 THE JOURNAL carried 3,046 advertising pages; of these 199 were for officers of the Association, the Contents and Digest, Journal, Association, State and National Society Announcements, Application Blanks, etc.

Advertisements to the amount of at least $8,000 have either been refused or dropped as being unacceptable to THE JOURNAL'S pages. We call attention to this fact to show that we are endeavoring to keep our advertising pages as clean as possible.

ADVERTISING DEPARTMENT.

The following comparative statement indicates the increase in advertising collections during the past four years:

	1898.	1899.	1900.	1901.	1902.
Jan...	$2,061.98	$3,292.84	$4,581.42	$5,998.63	$6,967.05
Feb...	2,415.67	2,391.65	3,133.42	4,829.22	4,617.17
March	1,557.51	2,763.23	2,701.98	3,657.08	5,980.53
April.	2,603.23	2,595.11	4,431.01	5,620.98	6,842.31
May..	1,095.43	3,240.89	3,238.98	4,915.41	5,522.46
June..	1,568.44	2,343.75	2,665.99	3,715.91	5,341.44
July...	2,689.05	3,453.41	3,764.67	6,683.78	4,180.32
Aug...	1,187.84	2,698.22	3,175.84	3,505.33	4,167.41
Sept..	1,635.44	2,093.68	2,953.72	3,923.05	4,501.35
Oct...	3,350.31	3,891.30	5,869.39	7,164.00	7,796.05
Nov...	1,719.96	2,734.25	4,116.84	4,807.84	5,276.18
Dec...	1,735.85	2,262.49	3,428.54	4,619.99	5,792.28
	$23,629.71	$33,760.82	$44,060.70	$59,441.82	$69,340.55

Indicating a gain for 1899 over 1898 of..... $10,131.11
Indicating a gain for 1900 over 1899 of..... 10,299.88
Indicating a gain for 1901 over 1900 of..... 15,381.12
Indicating a gain for 1902 over 1901 of..... 9,898.73

SUBSCRIPTION DEPARTMENT.

The following figures indicate the gross issue of THE JOURNAL each week during 1902:

Weekly Edition.			*Weekly Edition.*		
Jan. 4.....	24,125		July 5.....	25,000	
Jan. 11.....	24,150		July 12.....	25,100	
Jan. 18.....	24,100		July 19.....	24,894	
Jan. 25.....	24,150	96,525	July 26.....	24,875	99,869
Feb. 1.....	24,175		Aug. 2.....	24,854	
Feb. 8.....	24,150		Aug. 9.....	24,847	
Feb. 15.....	24,025		Aug. 16.....	24,838	
Feb. 22.....	24,415	96,765	Aug. 23.....	24,851	
			Aug. 30.....	25,164	124,574
March 1.....	24,683		Sept. 6.....	25,265	
March 8.....	24,417		Sept. 13.....	24,963	
March 15.....	24,364		Sept. 20.....	25,380	
March 22.....	24,375		Sept. 27.....	25,185	
March 29.....	24,400	122,279			100,793
April 5.....	24,340		Oct. 4.....	24,950	
April 12.....	24,319		Oct. 11.....	25,375	
April 19.....	24,349		Oct. 18.....	25,878	
April 26.....	24,400	97,408	Oct. 25.....	27,000	103,203
May 3.....	25,200		Nov. 1.....	27,000	
May 10.....	31,182		Nov. 8.....	26,922	
May 17.....	25,180		Nov. 15.....	27,000	
May 24.....	25,105		Nov. 22.....	26,637	
May 31.....	25,100	131,767	Nov. 29.....	26,450	134,009
June 7.....	25,770		Dec. 6.....	26,900	
June 14.....	25,303		Dec. 13.....	26,900	
June 21.....	25,820		Dec. 20.....	27,000	
June 28.....	25,310	101,703	Dec. 27.....	27,000	107,800
		606,447			670,248

Grand Total..... 1,316,695
Weekly Average..... 25,321

The total number of copies used during 1901 was 1,146,575, indicating an increase of 170,120.

The following is the detailed count of the mailing list by states, indicating the gains and losses in members and subscribers for the year 1902:

State.	Members.	Subscribers.	Totals.	Gain for Year.	Loss for Year.
Alabama	97	165	262	37	...
Arkansas	119	136	255	52	...
Arizona	25	26	51	27	...
Alaska	...	2	2	1	...
California	426	223	649	131	...
Canada	6	92	98	32	...
Cuba	3	4	7	1	...
Colorado	297	108	405	...	14
Connecticut	173	113	286	12	...
Delaware	28	16	44	5	...
North Dakota	66	52	118	18	...
South Dakota	69	97	166	17	...
Dist. of Columbia	137	246	383	170	...
Florida	71	60	131	51	...
Georgia	156	265	421	...	29
Illinois	1,272	1,629	2,901	329	...
Indiana	521	489	1,010	...	5
Idaho	26	29	55	23	...
Indian Territory	29	96	125	17	...
Iowa	543	442	985	18	...
Kansas	162	251	413	53	...
Kentucky	234	299	533	10	...
Louisiana	120	181	301	44	...
Maine	84	31	115	4	...
Maryland	234	448	672	230	...
Massachusetts	482	265	747	229	...
Michigan	458	721	1,179	346	...
Minnesota	422	263	685	41	...
Missouri	368	574	942	105	...
Mississippi	79	109	188	13	...
Montana	58	48	106	5	...
New Mexico	25	23	48	13	...
Nevada	...	11	21	10	...
Nebraska	199	187	386	47	...
New Hampshire	87	42	129	...	10
New Jersey	370	179	549	40	...
North Carolina	130	109	239	80	...
New York	967	622	1,589	317	...
Ohio	936	691	1,627	69	...
Oklahoma	51	112	163	43	...
Oregon	99	73	172	18	...
Pennsylvania	1,355	572	1,927	75	...
Rhode Island	79	61	140	...	...
South Carolina	65	143	208	49	...
Tennessee	188	308	496	...	41
Texas	243	483	726	...	1
Utah	53	29	82	25	...
Virginia	164	222	386	70	...
Vermont	78	17	95	14	...
Washington	114	96	210	34	...
West Virginia	113	112	225	67	...
Wisconsin	408	428	836	146	...
Wyoming	21	22	43	5	...
U. S. Army	...	249	249	...	48
U. S. Marine Hosp.	...	30	30	3	...
Hawaiian Islands	10	6	16	2	...
Mexico	8	19	27	2	...
Philippine Islands	10	7	17	1	...
Porto Rico	1	4	5	1	...
Foreign	14	41	55	16	...
	12,553	12,378	24,931	3,177	148

The figures given below indicate the count of the mailing list Jan. 1, 1903, compared with that of Jan. 1, 1902:

	Jan. 1, 1902.	Jan. 1, 1903.
Copies to members	11,107	12,553
Copies to subscribers	10,795	12,378
Copies to advertisers	272	332
Copies to exchanges (domestic)	140	150
Copies to exchanges (foreign)	47	64
Copies to medical colleges and libraries	117	114
Copies to subscription agents	72	81
	22,550	25,672

Indicating an increase for the year 1902 over 1901 of 3,122.

The following is a comparative statement of the net subscription collections for the years 1898, 1899, 1900, 1901 and 1902:

	1898.	1899.	1900.	1901.	1902.
Jan.	$576.31	$1,094.46	$3,614.08	$4,911.89	$7,575.03
Feb.	605.61	525.25	1,167.24	1,991.31	2,308.44
March	502.55	952.76	1,388.89	1,996.65	1,954.52
April	419.90	741.27	1,719.06	3,122.78	4,699.65
May	389.32	669.93	1,585.90	2,062.42	2,230.02
June	442.90	733.05	1,334.75	1,431.93	2,250.85
July	964.90	1,851.73	3,456.32	6,011.47	6,077.21
Aug.	638.18	1,208.38	1,246.03	1,974.59	2,337.87
Sept.	546.91	798.36	1,373.91	1,767.95	1,995.61
Oct.	623.33	1,313.20	3,285.49	4,152.10	4,355.48
Nov.	434.64	920.71	1,784.12	2,270.10	2,953.37
Dec.	902.90	1,474.42	1,872.14	2,160.26	2,871.43
	$6,746.55	$12,283.52	$23,697.03	$33,793.45	$41,570.48

Indicating a gain for 1899 over 1898 of..... $ 5,536.97
Indicating a gain for 1900 over 1899 of..... 11,408.51
Indicating a gain for 1901 over 1900 of..... 10,096.42
Indicating a gain for 1902 over 1901 of..... 7,777.03

In this connection we beg to call attention again to two items in the Auditor's report: (1) Membership dues is given as $55,455; (2) subscription is given as $30,863. It is only fair that we should say that of this $55,455 THE JOURNAL collected and transferred $10,706.83. Of this amount $2,364.93 was for old members; $3,105 was for new members, which had been obtained through our traveling men, by circular letters, etc., and $5,236.90 was for subscribers that were transferred to the membership list. In other words, THE JOURNAL office should be credited with $8,341.90 more than the amount given by the Auditor's report, as this amount was paid to the Treasurer for new members obtained through work done in THE JOURNAL office.

As mentioned last year, our subscription account is practically a clearing-house for membership. Subscribers are urged to become members as fast as possible. With each receipt for subscription a letter is enclosed by the Editor suggesting that the subscriber join the Association. This accounts for the difference in the percentage of collections from subscribers and members.

As shown above, last year there was transferred $10,706.83 to the Treasurer. In addition to the amount collected at THE JOURNAL office, quite a number of subscribers who became members during the year, paid direct to the Treasurer. For every name transmitted THE JOURNAL office handed the Treasurer $5, and there is quite an expense attached to these transfers, for which THE JOURNAL receives no credit, since THE JOURNAL had paid agent's commission for securing the orders, in addition to giving THE JOURNAL free for three months.

On Dec. 30, 1902, the Treasurer handed in a list of 158 names of those who were delinquent members for the years 1900, 1901 and 1902, to be dropped from the mailing list. Two letters, one on January 7th and another on the 17th, were sent to these members, urging those to whom they were addressed to retain their membership. To date we have collected from 47 of these delinquents the amount of $462.50. These have since been restored to our mailing list, and the amount turned over to the Treasurer, leaving still 111. On February 11 another letter was sent to these delinquents.

PAPER STOCK.

Following is the cost of paper stock for the past three years:

1900.	1901.	1902.
$25,598.00	$29,835.00	$35,675.06

This shows a gradual rise each year, but, as the price was the same, the rise is accounted for in the increased circulation.

The following table shows the total number of copies issued each year, total pages, and amount of paper stock used:

	Total No. Copies.	Pages.	Reams.	Lbs. of Paper.	Tons.
1898	597,282	4,756	3,395	321,525	157.0
1899	710,950	5,382	4,832	461,420	230.0
1900	907,200	6,087	6,747	607,230	303.5
1901	1,146,575	6,510	9,052	814,680	407.0
1902	1,316,695	6,522	10,430	938,700	469 1/3

As will be noticed, the increase, in round numbers, of 1902 over 1901 was 62 tons.

Our mailing lists of 25,672 names on Jan. 1, 1903, show that our Editor has given us a journal mailed to more than 25,000 persons. This was scarcely considered possible five (5) years ago, but it should now be regarded as a starting point, *a locus a quo*, to a bona fide circulation of 100,000. This can be attained in the next decade at furthest, if every member of the Association will do his duty. If the secretary or president of each county society in every state can be induced to regard it as one of his duties to lay before his organization the claims of THE JOURNAL as the organ of the whole profession of these United States, and impress on the members that it is not only their privilege but their duty, a duty owed the regular medical profession of our common country, to subscribe for and support it, new names will be added to the list of members, not by tens, but by hundreds. There should be an honest and earnest rivalry in the profession of the different states to show the greatest percentage of gain in subscribing for THE JOURNAL. To aid in carrying out this idea, your Board of Trustees, being impressed more, if possible, than ever before with the necessity of promptly pressing to a successful termination our plan of reorganization, secured the services of Dr. McCormack of Kentucky, who is to visit the different state societies and as many county medical societies as possible up to the May session of the Association, and present the matter clearly to them.

This action of the board was also necessitated by the fact that our Editor was being overworked and needed to be relieved of labors not belonging to his editorial department, that he had cheerfully done, up to the point where he could go no further, and yet the work could not be dropped. THE JOURNAL is worthy of the support of every member of the profession, be he a physician in our largest city or an humble practitioner in a most remote corner of some small county. Each one can find in its pages thoughts and suggestions adapted to his individual needs. THE JOURNAL is in no sense the organ of any specialty. Its pages are open to all, but contributions to be accepted must

show thought, not mere book papers, which could be read more easily in the originals from which they have been culled.

PRESSROOM AND OFFICE FURNITURE AND FIXTURES.

There was spent under this head in 1902 $259.70, but for 1903 still further expenses will have to be incurred in furnishing our new building, but when once made, since they are placed where there will be no need of moving, they will last for years, and soon the expense under this head will be nominal.

PLANT.

The machinery account as presented by the Auditor foots up $17,174.40 (last year the inventory showed $16,808.25), after adding a folder costing $2,148.50 and a motor $122.50, total additions $2,271, showing a deduction of about 10 per cent. for depreciation from use.

This inventory does not include two (2) large new presses, costing about $9,000, and two (2) automatic feeders, costing $2,750, which have been bought and placed in the new building, but have not been accepted; nor several electric motors, costing $1,200, for the same reason. Total new machinery bought, but not accepted Jan. 1, 1903, but to be paid for when accepted and working satisfactorily, $12,950. Your Board of Trustees ordered the purchase of a new linotype machine. When this is installed night work will not be needed in the office. During the past year it was frequently necessary to have one or more of the linotype machines run overtime and at night, adding materially to the expenses of THE JOURNAL. This can now be avoided.

PRESSROOM FURNITURE AND FIXTURES.

Many additional conveniences under this head have been added since THE JOURNAL moved into its permanent home. The report of last year referred to the fact that in its then quarters THE JOURNAL was much hampered for space in which to transact its business, as needed conveniences could not be added. In our new building all these conditions are changed, and gradually everything necessary to the economical running of a first-class plant is being installed. We do not deem it necessary to publish in this report an inventory of all our fixtures and furniture. Suffice it to say that, whereas the inventory presented at the Denver meeting occupied a space of fifteen (15) lines in the report, a full page would be needed for this. I would call attention to only one item. The Denver report showed three (3) Miehle presses and one (1) Gordon press. We now have two (2) double and three single Miehle presses, and one Gordon and one Universal press, more than double what we then had. The change is greater in every other portion of the office.

Besides these two large presses, we have three single, presses, so that in case of failure of either of the large presses, we could still get out THE JOURNAL without much crowding.

Hence, our press facilities are practically perfect and give us an opportunity to do much work that has heretofore been out of the question. Further, it will enable us to get out our reprints within a reasonable time, as well as the Transactions of the various Sections and other work.

OFFICE FURNITURE AND FIXTURES.

Additions have been made to this department also, but as they were made since Dec. 31, 1902, they do not belong in this report. The office is now up to date.

LIBRARY ROOM.

On the third floor the front room has been arranged for a library. In it will be found the latest books, etc., sent to THE JOURNAL for review, etc. It will be used as a reading and reception room, where members of the Association will always be welcomed by the Editor. In this room will be held the meeting of your Board of Trustees from year to year.

The whole building is a credit to any organization, and the arrangement of the building in its relations to the balance of the property is such that it can be added to at any time that there should arise any demand for more space.

RESIDENCE PROPERTY.

It must not be forgotten that we own, in addition to our JOURNAL building, three (3) residences on ground sixty by eighty feet. These we rent for about $140 per month, yielding us an annual rental of about $1,600, which we hope to increase to $1,800, being about 4 per cent. on the original purchase money for the five lots and houses. Instead of being compelled to pay out about $5,000 for rent, as we would have had to do for room enough to carry on our JOURNAL work, we not only pay out nothing, except for taxes and insurance, but we receive an income of at least $1,600 from our own rents, making a difference of $6,600 to offset the interest on our investment, $82,665.26. For one to have suggested five years ago the possibility of this consummation of our hopes and wants, he would have been considered a veritable Colonel Sellers, and yet the profession of regular medicine now has its home, a building of which none of us need be ashamed. But while we present to you this pleasant picture, we do not wish you to imagine the work is completed. Much yet remains to be done. The success of your JOURNAL depends as much on the future as the past, probably more. You have simply laid a foundation sufficiently broad on which you can build a superstructure in a journal of which the whole medical profession can be proud.

To make it a success there must be, as in all other enterprises, money behind it to tide it over any emergency. A successful bank lays up a reserve fund of undivided profit. Manufacturing enterprises do the same; so, too, must the American Medical Association begin to lay up judiciously a sum of money for future use. The minimum of this fund, in the estimation of your Board of Trustees, should be $100,000. Less than that will not do. Times of depression and stagnation in business must come. We appear to be floating now on a tidal wave of prosperity, but the ebb must just as surely be met. To do this as it becomes you, you must have this reserve fund. As a basis of this reserve fund, we have $14,000 in Chicago city school bonds, worth now a little over $15,000. We ordered the local trustee, Dr. Ingals, to add to this sum, $6,000, so as to make our investment $20,000. We would suggest that the Association be just as careful about its expenditures for the next five years as it has been in the past, and all will be well. A false step will blight what now appears to be the brilliant possibilities of your JOURNAL. We do not mean that THE JOURNAL should not be improved. For that purpose money should be expended prudently, but freely. Your editor should be encouraged in every way to strive to keep THE JOURNAL to the forefront. More and better reading matter and less advertising matter about which any question could be raised should be a *sine qua non* in the conduct of your organ. Reference has already been made to the fact that advertisements have to be refused though the medicines presented in them are endorsed not by D.D.'s, but by M.D.'s who stand high. The manufacturers of proprietary preparations are fast learning that THE JOURNAL is living up to its rule of requiring the formula of every internal remedy advertised in its pages. The trend in regard to external remedies is in the same direction, though your board has not taken as decided and definite action in regard to them as we hope soon to do.

ACCOUNTS AND COLLECTIONS.

Several accounts for postage were presented during the year that has just passed, but as your board decided that the appropriation made at the Saratoga meeting could not be used to meet the expenses already incurred, none of them was paid, but the fund will be available for Section use at the New Orleans session. For these accounts to be promptly met, they must be presented to some member of the board by the third day of the New Orleans session, viz., May 7, 1903. If presented after that time they can not be properly audited and paid before the February meeting.

Your Board would report further that questions of the compensation of committees have been before us, but where there was no specific appropriation of money for their use, we have declined and will continue to decline to meet such requests. If the House of Delegates desires to expend money for committee work, as was done in the case of the Committee on Organization, we recommend that an appropriation not to exceed a definite sum be made, and then your Board of Trustees will have no trouble in adjusting all such claims. This has been your rule in reference to your Pathologic Exhibit, and we would ask that the same course be pursued in all such cases. For the reason that indefinite appropriations would have to be made (among many other as good or better reasons), your Board of Trustees would recommend that the exhibits at our annual meeting be left for the present at least under the control of the local committee, with a continuation of the restrictions already imposed, that no exhibit should be made of and for which advertisements would not be received for our JOURNAL.

We feel that, whilst in many respects it would make the Association more independent in selecting a place for its annual session, yet it would appear undignified for us to be sending an agent to the place of meeting to arrange for halls of all kinds, and then to sell floor space to interested exhibitors, as would have to be done to save an enormous expense to the Association. All these things can be better done by the local profession, and we feel that, for the present, at least, the wisest course to pursue would be to keep in the beaten path, and go on as we have been doing till the Association has a sufficient reserve fund on hand with which to meet emergencies.

CODE OF ETHICS.

To avoid the possibility of an unnecessary expense, the Editor was directed not to print and send out, as he has done for several years, the "Code of Ethics" to medical students, in view of the fact that a special committee has under consideration a revision of the code, and are to report at our next annual meeting As changes may be made, we thought it would be better to await the action of the House of Delegates on the matter, and then have copies of the code printed and sent out.

NATIONAL INCORPORATION.

In regard to the question of a national incorporation, which would permit the American Medical Association to meet in any state or territory in the Union, to transact and complete its business without being compelled to hold an adjourned meeting in Illinois for the purpose of ratifying its acts done at the place of meeting, your Board of Trustees has considered it at much length. Much correspondence has passed and repassed between interested parties and various members of the board. All felt that if such an end could be attained, it certainly should be done. At our annual meeting the secretary of our board, Dr. Montgomery, arranged much of this correspondence, and presented it to us on the afternoon of the first day. The attorney, Mr. Baldwin, who had been advising with us, being present, by request, took part in the lengthy discussion of the question. At the end of the session, he was requested to take the correspondence, arrange and go over the same, and furnish an opinion which could be employed by the board as an explanation, should it decline to proceed in accordance with the requests made for them to act in this matter of national incorporation. We can arrive at no better way of presenting this matter so that it may be fully and clearly understood than by giving to the House of Delegates and, through you, to the whole Association, Mr. Baldwin's report verbatim. Whilst it is lengthy, it could not be well condensed without the omission of matters necessary to a clear comprehension of this mooted question. The sum and substance of this opinion is: (a) That the constitution and by-laws adopted at St. Paul had no binding force at all until they were readopted in Illinois; but the action had at Saratoga, and readopted in Chicago, is binding, and the charter and by-laws under which we are now acting are legal, since they were readopted in Illinois, where the Association is incorporated. (b) That a national incorporation such as is desired seems at present impossible. This communication constitutes Exhibit "D."

Respectfully submitted,
T. J. HAPPEL, Chairman,
MILES F. PORTER,
E. FLETCHER INGALS,
W. S. RODMAN,
E. E. MONTGOMERY, Secretary,
W. W. GRANT,
JOHN F. FULTON,
H. L. E. JOHNSON,
A. L. WRIGHT, *Trustees.*

ADDENDUM: Your Board of Trustees would further report, that on March 31 the books of the Association showed your real estate account balanced—not a dollar being outstanding on any of our contracts. At that date we had on hand, including our Chicago City School Bonds, $39,427.23, but from this amount would have to be deducted unpaid bills for machinery not accepted at that time. We would recommend that the secretary of each Section of the American Medical Association be allowed the sum of $50 as compensation for services, postage, etc., annually, believing that this sum would enable the Sections to frequently retain an efficient secretary for a term of years. We would further recommend the following changes in the Association button: Leave the first "M" from the face of the button and make the bars plain, straight bars, instead of the present bars. We present you a model of this button and believe that it presents a neater appearance.

EXHIBIT "D."

LAW OFFICES, JESSE A. AND HENRY R BALDWIN,
CHICAGO, March 13, 1903.

To the President and Board of Trustees of the American Medical Association, care Dr. E. Fletcher Ingals, Chicago.

Gentlemen: On Friday, February 20, 1903, at your invitation, I attended a meeting of your board, held in this city, at which time there was discussed the propriety of certain of the by-laws of your Association, as well as the legality of their adoption, and the further, and perhaps more important question, whether or not your board ought to then proceed toward securing a national charter for the American Medical Association. You will remember that there were read at that meeting the following:

1. A letter from Dr. F. H. Wiggin to Dr. Simmons, dated November 18, 1902, raising the question whether the various changes made in the by-laws, at the meeting of the Association held in Saratoga, in 1902, and afterwards ratified at an adjourned session of that meeting, in Chicago, Illinois, were properly made, it being stated that such changes had not been proposed in conformity with the rules of the Association adopted at its meeting at St. Paul, June 5, 1901.

2. A letter from Dr. F. H. Wiggin to Dr. Johnson, as secretary of your Board of Trustees, dated November 19, 1902, raising substantially the same questions, and suggesting that the Association be incorporated "under the National law."

3. A letter from Dr. F. H. Wiggin to Dr. Montgomery, dated December 8, 1902, criticising the method by which the changes in the by-laws had been made, quoting a portion of the law of the state of Illinois, and arguing that the changes which had been made in the articles of incorporation had not been made in conformity with the law of Illinois, and again suggesting that the Assocaition should "get a National incorporation rather than to continue its existence under the Illinois law."

4. Letter from Jesse A. Baldwin, Esq., to Dr. George H. Simmons, dated December 15, 1902, replying to objections made in the letters previously mentioned as to the method by which the changes had been made.

5. Communication dated December 22, 1902, from James Taylor Lewis, Esq., entitled "Opinion of the Counsel of the New York State Medical Association," addressed to Dr. Wiggin, criticising the conclusion reached in Mr. Baldwin's letter.

6. Letter from Jesse A. Baldwin, Esq., to Dr. Ingals, dated December 26, 1902, reporting that, at the request of Dr. Ingals, he had investigated to ascertain whether the American Medical Association could better accomplish its purposes by securing a National charter (if one could be secured), or by organizing under the laws of some other state or territory of the Union; and in which he advised, 1, that congress would have no power to create a National corporation for the purposes contemplated, by giving it a National charter; and 2, that, having communicated with the secretaries of state or attorneys-general of forty-seven states and territories, and having examined a large amount of printed and written matter, bearing on the corporation laws of the various states and territories, he was of the opinion that the proposed object sought to be accomplished, viz.: the right to hold its meetings, from time to time, and transact its business in any of the various states and territories of the Union, could not be secured by incorporating under the laws of any of the other states or territories. The letter further stated that while the laws of some of the states were more liberal in some of their provisions, with respect to corporations similar to our own, there were none in which the advantages offered were sufficiently superior to those granted by the laws of the state of Illinois, as to make them worthy of serious consideration; that in the letter from the Hon Attorney General from Wisconsin, replying to my inquiry, he had said:

I am very clear that the corporation could not be formed under our statutes, which would result in the general offices and the books and records being kept outside of the state. I also think it would be necessary to have the meetings for the transaction of business of the corporation, held in the state. Of course, this would not prevent other meetings being held for other purposes, in other states, but I think that the meetings of the stockholders and directors, for the transaction of business must be held here.

7. Extract from a letter from Dr. Simmons to Dr. Wiggin, dated Jan. 7, 1902, which does not relate to the subject matter, concerning which I was asked to advise

8. Letter from Dr. Wiggin to Dr. Montgomery, dated Jan. 9, 1903, in which Dr. Wiggin states that he sends with letter copies of opinions on the matter of the changes in the constitution or articles of incorporation of the American Medical Association at Saratoga; one being an argument sustaining their legality, from the counsel of the American Medical Association (myself), and the other questioning their legality, from the counsel of the New York State Medical Association (James T. Lewis, Esq.).

9. Copy of a letter signed by James T. Lewis, counsel, dated Jan. 16, 1903, addressed to Dr. Wiggin, president, New York State Medical Association, stating that there could be no possible question but that "the American Medical Association could be, and should be, incorporated under an act of congress," and, stating further, that "the case of McCulloch against the state of Maryland, 4 Wheat. 316, is the leading case and takes up and discusses the whole question and determines it finally" He further states that the "American Social Science Association" was thus incorporated, as also "The Jeanette M. Thurber Conservatory of Music," the charter for the former having been drawn up by Mr. Justice Simeon F. Baldwin, an able constitutional lawyer. The letter further says (referring to the opinion of your counsel, Jesse A. Baldwin, Esq., that congress has no power to incorporate the American Medical Association as a national organization, with rights to business anywhere in the United States), "The statement that it is impossible is absurd, I care not who makes such a statement." He further states that, in his judgment, there is but one course

to pursue, and that is to have the trustees of your Association forthwith apply to congress for a special charter, and have the Association "made a national body in fact," and further adds that he "would be glad to do it."

10. Letter from Dr. Wiggin to Dr. Montgomery, dated Jan. 21, 1903, evidently transmitting the previous letter to Dr. Montgomery.

11. Letter from Dr. Wiggin, president New York State Medical Association, addressed to Dr. Montgomery, secretary of your Association, dated Jan. 31, 1903, in which he says that it seems clear to him that the alterations made in the articles of incorporation at the Saratoga meeting were improperly made (though the mistake was unintentional), because they had not "been proposed in open meeting of the House of Delegates one year previous to being acted on," nor had they been "published at least three times in THE JOURNAL during the interim," etc, according to the provisions of the constitution or articles of incorporation adopted at the St. Paul meeting, June 5, 1901, and quoting a part of the statutes of Illinois. He suggests that the counsel for the American Medical Association (meaning myself) should not have taken advantage of the failure to file with the secretary of state of Illinois, as required by its laws, the constitution or articles of incorporation adopted at St. Paul. He also suggests that it would be wise for your board to secure a "national incorporation" rather than to continue its existence under the laws of Illinois, etc. He says that "in case a national incorporation should be procured by a special act of congress, the House of Delegates could complete its business at its annual meeting, wherever it might be held." He further states that the only objection to this proposition which has been raised is that (raised by myself) the Association could not so incorporate; and he then refers to the McCulloch case, and mentions the incorporation of the American Social Science Association and the Jeanette M. Thurber Conservatory of Music, and adds his endorsement to the deservedly high standing of Mr. Justice Simeon E. Baldwin, who drew up the "charter" for the American Social Science Association. He expresses his belief that, whatever the expense and trouble incurred in procuring a national organization, it would be worth all it would cost "so to organize the American Medical Association that its interests may be carried on in future free from any disturbance from schemers and others who might seek their own, rather than the interests of the organization."

12. Letter from Dr. Wiggin to Dr. Montgomery, dated Feb 10, 1903, offering to procure and send a copy of the charter of the American Social Science Association, and suggesting that Dr. Montgomery look at the McCulloch case, 4 Wheat., 316, which Dr. Wiggin says he is informed "discusses the whole question and determines it finally, and which your correspondent, the Hon. O. U. Underwood, did not seem familiar with," and suggesting that Speaker Henderson be requested to look up the McCulloch case.

13. Letter from Dr. Wiggin to Dr. Montgomery, dated Feb. 15, 1903, suggesting that your Board of Trustees appoint a committee to secure a national charter, with the help of Mr. Lewis and one or two others.

14. Letter from James Taylor Lewis, Esq., to Dr Montgomery, dated Feb. 17, 1903, explaining why he can not send to Dr. Montgomery a copy of the charter of the American Social Science Association, and adding that the attorney general has stated that he could not give any assurance that a charter could be secured during the then present congressional session, and suggesting extra effort on the part of the special committee of your board to procure this charter.

15. Letter from Hon. D. B. Henderson to Dr. Montgomery, dated Feb. 8, 1903, transmitting a letter from Hon. O. W. Underwood of Alabama, formerly a member of the House Judiciary Committee.

16. Copy of a letter from Dr. Montgomery to General Henderson, speaker, etc., dated Feb 4, 1903, stating that the American Medical Association is incorporated under the laws of Illinois, conducting a journal and owning property in Chicago; that a large part of its members is dissatisfied with the conditions which make it necessary that its transactions should be ratified by meetings held in Illinois in order to make them valid, and inquiring whether it would be possible to secure through congress a charter "which would give us the privilege of holding our meeting in any state in the Union while still carrying on the business in Chicago. I am told that the American Social Science Association has received a national charter through congress," and requesting Mr. Henderson to inform him of the "method" by which he should proceed.

17. Letter from O. W. Underwood to Speaker Henderson, dated Feb. 7, 1903, stating that Mr. Henderson desired Mr. Underwood to write him "an opinion as to whether congress could properly grant such a charter." He then cites a paragraph from the opinion of Chief Justice Marshall, as follows:

> The power of creating a corporation, although appertaining to sovereignty, is not like the power of making war or levying taxes or of regulating commerce, a great substantive and independent power which can not be applied as incidently to other powers or used as a means of executing them. It is never the end for which other powers are exercised but a means by which other objects are accomplished.

The remainder of Mr. Underwood's letter is as follows:

> It is therefore clear that Congress may create corporations as a means of executing the other powers of government, for instance, a bank for carrying on the fiscal operations of the United States, or a railway corporation for the promotion of Interstate commerce, but unless the creation of the corporation is intended as a means of exercising, using, or controlling some of the great powers dedicated to the federal government, there is clearly no authority for Congress to incorporate such a company.
>
> From the statement contained in Mr. Montgomery's letter, I do not see wherein the incorporation of the company he proposes would come within the powers above mentioned, and, therefore, I do not believe that Congress would have power to incorporate this company. Of course, on the other hand, Congress has unlimited power to legislate for the District of Columbia, and would have power to incorporate a company for the purpose of doing business within the District of Columbia, and incidentally it might transact its business throughout the United States as other corporations do, but such a charter would not be a general charter, but would be local to the District and would have the same limitations on it that charters issued by the State Government have. I return herein Mr. Montgomery's letter.

18. Letter from James Taylor Lewis, Esq., to Dr. Montgomery, dated Feb. 14, 1903, in which he states that he has read the opinion of Mr. Underwood and the letters from Speaker Henderson, and that he can not see anything in either of them that goes to the point "except as an argument in favor of congress granting a charter to the American Medical Association." He adds:

> The Government has a Department of Education, and a Commissioner of Education, and it is along the lines of development in science and education that this corporation seeks federal recognition, and has a precedent granted in the charter granted the American Social Science Association, and the Jeanette M. Thurber College of Music.
>
> The learned remarks of Chief Justice Marshall are very apt in this connection because you are seeking a corporation which is to be the means of advancing and executing the educational branch of the Government, and this corporation should very properly receive recognition as a part of the educational system of the United States.

He further adds that he is ready to be of any service in bringing about the securing of a charter, and is willing to present the matter to the attorney general or the president, and he adds, referring to the proposed charter, that "of course, it is a great concession by congress".

19. Letter from Dr. Lambert to Dr. Montgomery, dated Feb. 18, 1903, stating that Dr. Wiggin and Mr. Lewis had asked the writer to help obtain a national charter in case one should be applied for, and tendering his services.

20. Telegram from Dr. Wiggin to Dr. Happel, dated Feb. 20, 1903, mentioning vol. 30, U. S. Statutes at Large, page 804, as giving the charter of the American Social Science Association.

After the foregoing communications had been read, I was called on to address the board with respect to the matters involved. You will remember my statement made at that time, that the various modifications made in the articles of incorporation and by-laws of the American Medical Association were advised in an honest effort on my part to utilize to the fullest degree possible the elaborate and (in the main) well devised and carefully worked out scheme of organization for the Association, and that I had advised only such changes as seemed to me necessary to make the organization legal under the laws of the state in which it had been incorporated long before I became its legal adviser; that at no time had there been any suggestion made to me by any person that I do more than this; that I confidently believed the objections urged against the propriety of the legality of what had been done were based on a misapprehension of the situation, and were due to a lack of accurate knowledge as to the laws of the state of Illinois with respect to corporations of this character.

I am sure that the intimation of Dr. Wiggin, in his letter to Dr. Montgomery, dated Jan 31, 1903 (No. 11, supra), that the organization is in danger "from schemers and others who might seek their own rather than the interests of the organization," is inadvertent, and can not be intended as a deliberate insinuation that the able and honorable men comprising the membership of the American Medical Association are either now, or are likely to be, engaged in such a perfidious purpose.

The men who are, to the best of their ability, conducting the affairs of this Association, and endeavoring to make its existence and proceedings conform to the laws of the state of Illinois under which it is organized, are no more proper subjects of distrust and suspicion than would be the men prominent in the management of the New York State Medical Association, of which Dr. Wiggin is the honored president and James Taylor Lewis, Esq., the able counsel.

Assuming, as we are compelled to do, that the counsel for the New York State Medical Association is in error with reference to the corporation laws of the state of Illinois, and is in further error in supposing that congress could confer on you a national organization with the powers indicated, and that he would find (if he looked) that the American Social Science Association is, by the very act creating it, "constituted a corporation by that name in the District of Columbia," assuming all these things to be true, yet they do not afford sufficient reason for suspecting his motives, nor in any manner reflecting on him, other than to show that he is mistaken.

The contention that the amendments to the articles of incorporation (or constitution) and to the by-laws adopted at the Saratoga meeting, in 1902, and ratified at the adjourned session of that meeting, held in Chicago, were not properly adopted, because they were not severally proposed "in open meeting" one year previous to being acted on, nor published at least three times, etc., according to the so-called constitution and by-laws adopted at the St. Paul meeting, in 1901, is erroneous, because:

1. Corporations exist not by natural right, but because they are allowed by the sovereignty (state or national) creating them.

2. No sovereignty (state or national) can give to a corporation created by it, rights and privileges which can be exercised and enforced outside of the jurisdiction of the sovereignty (state or national) creating such corporation.

3. The American Medical Association was incorporated under the laws of the state of Illinois, in 1897. Its meetings for the transaction of business could only legally be held within the territorial limits of the state of Illinois. Therefore, the so-called constitution and by-laws supposed to have been adopted at St. Paul, Minn., were not valid, because not adopted at a meeting held within the state of Illinois.

The amendments to the articles of incorporation voted on at your Saratoga meeting, in 1902, and ratified at the adjourned session of that meeting held in Chicago, were properly made, because the state of Illinois permits such amendments to be made at any annual meeting or at any adjourned session thereof.

As to the propriety of the present by-laws permitting so small a number to constitute a quorum at the adjourned sessions, that is a matter which the Association must decide for itself. If the present number does not correctly represent the judgment of the Association, it should be changed. However, there is nothing in the by-laws to prevent any number, even to the full membership of the Association, attending the adjourned sessions. Nor can I think it probable, as seems to be feared, that even as small a number as constitute a quorum will be likely at such adjourned session to exercise bad faith toward the remainder of the Association.

On the question of a national incorporation, suggested by Dr. Wiggin and strongly urged by counsel for the New York State Medical Association, which Dr. Wiggin says should be procured by a special act of congress, at which "the House of Delegates could complete its business at its annual meeting, wherever it might be held," and which, in the language of the letter from Dr. Montgomery to Speaker Henderson, "would give us the privilege of holding our meeting in any state in the Union while still carrying on the business in Chicago," and in which the advocates have so repeatedly referred to the case of McCulloch vs. State of Maryland, 4 Wheaton, 316, as an authority, and the incorporation of "The American Social Science Association," as a precedent, I have to say:

First. As to the authority: McCulloch vs. State of Maryland, was a suit brought to recover a tax levied under "An act to impose a tax on all banks, or branches thereof, in the state of Maryland," etc., and was a direct attempt, on the part of the state of Maryland, to tax the business of a branch of the "Bank of the United States." The decision of the Supreme Court of the United States involved two questions:

1. Whether congress had constitutional power to incorporate the "Bank of the United States," and

2. Whether the state of Maryland might, without violating the constitution, tax a branch of that bank, located in the state of Maryland.

The case was argued by eminent counsel, including, among others, Mr. Webster and Mr. Pinkney, and the court decided:

1. That congress has power to incorporate a national bank, under that branch of the constitution which gives to congress the power to lay and collect taxes; to borrow money; to regulate commerce; to declare and conduct a war; to raise and support armies and navies, etc.; and

2. That the state of Maryland could not legally tax the branch of the "Bank of the United States."

This decision has been cited by the Supreme Court of the United States more than one hundred times, and in the various Federal Reports thirty-eight times, so that the case is not at all new or startling to a lawyer in active practice.

It is easy, however, to see a very distinct difference between the incorporation of a "Bank of the United States" and an association of this character. The constitution of the United States confers on congress the power to make laws respecting the coining of money, etc., and it is easy to see where the Supreme Court found authority for the position that the creation of this "Bank of the United States" was a fit instrumentality to carry into effect the powers distinctly conferred on congress by the constitution, but no such power has been conferred on congress with respect to educational institutions, churches or similar institutions.

Congressman Underwood was undoubtedly correct in denying that "congress would have power to incorporate" this Association. He is also correct in saying that, "on the other hand, congress has unlimited power to legislate for the District of Columbia, and would have power to incorporate a company for the purpose of doing business within the District of Columbia, and, incidentally, it might transact its business throughout the United States, as all other corporations do, but such a charter would not be a general charter, but would be local to the District, and would have the same limitations on it that charters issued by the state government have."

And now, a reference to the "American Social Science Association": On the 28th of January, 1899, an act of congress was approved, which reads, word for word, as follows:

An Act to incorporate the American Social Science Association.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That Daniel C. Gilman, Carroll D. Wright, Andrew D. White, Dorman B. Eaton, James B. Angell, William T. Harris, Frederick J. Kingsbury, Oscar S. Straus, Francis Wayland, Saint Clair McKelway, Simeon E. Baldwin, and their associates, members of the voluntary association organized in eighteen hundred and sixty-five and known as the American Social Science Association, and their successors, are hereby constituted a corporation by that name, in the District of Columbia, for the purpose of promoting studies and researches in social science in the various departments in which said association is or said corporation may be organized.

Sec. 2. That this act shall take effect upon its acceptance by said voluntary association at its next regular annual session.

Sec. 3. That the right to alter, amend, or repeal this act at any time is hereby expressly reserved.

Approved, Jan. 28, 1899. 30 U. S. Statutes at Large (55th Congress, 1897-1899), page 804.

It will thus be observed that this act of congress provides that this American Social Science Association "are hereby constituted a corporation by that name in the District of Columbia," and it has, therefore, the same relative territorial limits to its rights and privileges that it would have if incorporated in any other territory or in any of the states of the Union; and, as stated by Congressman Underwood, "such charter would not be a general charter," but is "local to the district," and has "the same limitations on it that charters issued by the state government have."

I have never doubted that an association like ours could be incorporated, by act of congress, in the District of Columbia, but that would carry with it the same limitations with respect to the necessity of holding business meetings within the District of Columbia, that now make it necessary for them to be held in Illinois, and it is more than doubtful whether this would be any improvement over present conditions.

IN CONCLUSION.

The matters considered by your Board of Trustees at its meeting in Chicago on the 20th day of February, 1903, involved:

1. The suggestion that the present articles of incorporation and by-laws, as acted on at your annual meeting in Saratoga and ratified at the adjourned session of that meeting, in Chicago, were not legally adopted, because the changes had not been proposed and published in conformity with the rules of the Association, adopted at St. Paul, in the year 1901, in relation to amendments.

2. That the provisions of the by-laws, fixing a quorum at the adjourned session, permitted too small a number; and

3. That your board ought immediately to take steps to secure from congress a national incorporation, which would give it the privilege of holding your meetings in any state in the Union, and thus "complete its business at its annual meeting, wherever it might be held."

After extended discussion by you, and after you had listened to the presentation of the law applicable to the situation which, as counsel for your Association, I made, your Board of Trustees reached its conclusions with respect to the several propositions, and instructed me to prepare an opinion, setting out, in detail, the situation. This detail is furnished in the previous portion of this letter. A summary of the conclusions reached, with reasons as to each proposition, is as follows:

1. The amendments to the articles of incorporation and the by-laws, adopted at the Saratoga meeting, and ratified at the meeting in Chicago in 1902, are legal. The requirements above referred to—that they should have been proposed "in open meeting" one year previous to being acted on, and published, etc—had no binding validity, because the American Medical Association is a corporation of the State of Illinois. Its meetings for the transaction of business could only be legally held within the territorial limits of this state; therefore, the so-called constitution and by-laws, supposed to have been adopted at St. Paul, and the limitations they provide as to amendments, were not valid, because not adopted at a meeting held within the state within which the Association is incorporated; besides which, the statutes of Illinois expressly permit such amendments to be made at any annual meeting or at any adjourned session thereof.

2. As to the propriety of so small a number constituting a quorum at an adjourned session, that is a matter which the association must decide for itself. There is nothing in the by-laws to prevent any number, even to the full membership of the Association, attending the adjourned session, if they so desire; nor does it seem probable that so small a number as constitutes a quorum will be likely, at such adjourned session, to exercise bad faith toward the remainder of the Association.

3. The board decided that it was not its duty to take steps toward securing the proposed national incorporation, because:

(a) It seems very clear that congress has no power to create a national incorporation for the purposes mentioned in the charter of our Association, and to give to such Association the power to do business in any of the states or territories of the Union.

(b) While congress undoubtedly has the power to create, by special act, a corporation of this kind, and has, in fact, created somewhat similar organizations, among which is "The American Social Science Association," yet, when created, such corporations are (as is the American Social Science Association) only a corporation of the District of Columbia, and not national, and such corporation would have the same territorial limitations on it as would have charters issued by the various state governments, so that whether the Association be incorporated in the District of Columbia or in some of the other states or territories of the Union, it would be necessary to have its meetings, for the transaction of business of the corporation, held in the District of Columbia or in the state or territory in which it is incorporated. This, however, does not prevent other meetings being held for other purposes outside the state or territory creating the corporation. Precisely that condition exists to-day, so that unless it would be more convenient for you to hold your meetings for the transaction of the business of the corporation in the District of Columbia than it is to hold them in the state of Illinois, there would be nothing gained by the proposed change. In addition to this, your attention was called to the fact that as Trustees for the American Medical Association, a corporation of the state of Illinois, having large property interests here, you were, in fact, trustees for the entity—the Association—and for its various members bound to preserve its and their property in this corporation, and that you would be justly censurable if, without unanimous consent, you took measures involving the expense and uncertainty of securing the proposed corporation to take the place of the present one.

Yours truly,

JESSE A. BALDWIN.

REPORT OF THE COMMITTEE ON PROPHYLAXIS OF VENEREAL DISEASES.

Dr. Ludwig Weiss, chairman, read the report of his committee as follows:

To the President and House of Delegates of the American Medical Association: Gentlemen—The Committee on Prophylaxis of Venereal Diseases begs leave to submit the following report:

The Committee elected Dr. Henry D. Holton of Brattleboro, Vt., Chairman, and Dr. Ludwig Weiss of New York, Secretary.

Several meetings were held by correspondence; and in order to expedite matters, it was agreed on to appoint Drs. Holton, Bulkley and Weiss as a sub-committee with power to act. Dr. Frank H. Montgomery of Chicago resigned his membership on account of leaving the country, and Dr. Frank Billings, President of the American Medical Association, appointed Dr. Louis E. Schmidt, Chicago, to fill his place.

The scope of the work which the Committee has set before itself consisted at first in corresponding through its Secretary with medical men and philanthropists, with the view of gathering such information and suggestions as they may have had to offer. This step, however, did not seem productive of what the Committee considered helpful hints. It did not elicit new facts and only gave occasion to ventilate different and uncompromising views, which, while proper before an assembled body like a congress, did not open new avenues to aid the Committee in its preliminary work.

In looking for another more promising basis for its studies, the Committee has very keenly felt the utter want of statistics from boards of health, etc. There was absolutely nothing on which to build, or from which to draw conclusions. While other contagious diseases are controlled and combated by boards of health with great vigor and excellent results, venereal diseases are ignored by our sanitary authorities, and the morbidity therefrom is consequently not a matter of record; officially, there are no venereal diseases in these United States.

There remained only one other source of information, viz., the utilization of the records of the different municipal and general hospitals in the larger cities of the union. But this task would have needed a large clerical force and a substantial appropriation to cope with. It was, however, tried tentatively in many instances and proved futile.

The returns were utterly disproportionate to the number of inquiries sent out; but, had they all replied, as will be seen later, the statistics thereof would not have proved of great value. In most general hospitals, venereal diseases are not treated; or, if so, those cases figure under different names, pertaining to the late manifestations of these diseases. This had been the experience of the Committee of Seven appointed by the Medical Society of the County of New York in 1901, for the study of measures for the prophylaxis of venereal diseases. Furthermore, the imperfect records, the various designations and omission of diagnosis and other necessary particulars for fairly definite statistics would have made it illusory to draw conclusive statistics.

These sources, while they yield interesting deductions, do not represent the amount of venereal diseases treated in the public institutions.

Your Committee then decided to enlist the help of the medical press of the country, and to this end issued a circular letter, with a request to support the movement.

Your Committee embraces this opportunity to extend publicly its thanks to the medical journals for the readiness with which the appeal was given place in their columns, either in extenso or in abstract. Without their powerful aid, surely a movement like this must fail; with their co-operation, it has a good chance to succeed.

Simultaneously with this move and in order to ascertain any laws in regard to prostitution and free treatment of venereal diseases, your Committee drafted the following questions and assigned to each member a division of the United States, so that every state and territory was covered. The following questions were asked of the different states:

1. What laws exist in the different states relating to prostitution?
2. Is there a sanitary marriage law which provides for medical examination of the contracting parties?
3. Is there any law against wilfully or knowingly communicating venereal diseases?
4. What, if any, municipal regulations exist in any city of your state regarding these diseases?
5. Is notification required of these diseases in your state?

Up to the time of completion of this report, 20 states have responded, and many more are confidently expected to do so. But even from this limited number, the utter lack of laws to combat venereal diseases can be ascertained.

The following is a summary of the returns from the states which have responded, viz.: Arizona, Connecticut, Colorado, District of Columbia, Maine, Maryland, Massachusetts, New Hampshire, North Carolina, New York, Ohio, Oregon, Pennsylvania, Rhode Island, Utah, Virginia, West Virginia, Washington, Vermont.

Each of these states, with the exception of Rhode Island and Connecticut, has, in answer to question 1, the usual laws and sundry police regulations of general character against houses of ill fame, including specified nuisances therein against soliciting in street and against enticing of females under 16 years. To questions 2, 3, 4 and 5, the answer in all instances as far as relating to venereal diseases is negative.

It is gratifying to note that this circular letter elicited a number of responses from physicians, medical associations and health officers. Through the latter source, we could ascertain that, independently of the general state laws, some municipalities have their separate local laws or ordinances regarding the social evil.

The fact that states and municipalities in most instances have different laws on this question, as is the case in several states, made the task of gathering reliable facts one of great difficulty.

In order to ascertain the extent of such divergencies and also to become acquainted with the different ways municipalities settle this question, your Secretary has issued a circular letter to the health officers of the forty largest cities of the United States. The letter and questions are herewith appended:

Dear Sir:—The undersigned, Secretary of the Committee on Prophylaxis of Venereal Diseases of the American Medical Association, takes the liberty of requesting you kindly to answer the following questions, to be used by the Committee for compiling statistics.

The Committee is already in possession of data on this topic emanating from the state authorities; but, inasmuch as there seem to exist in several large cities separate laws governing these questions, independent of state laws, the Committee would be greatly indebted to you, if you would kindly furnish it the data embodied in its questions.

As the Committee has to report at the next—New Orleans—session of the American Medical Association, May 5-8, a prompt answer would greatly oblige.

Very truly yours, L. WEISS, Secretary.

1. Is there any law or ordinance in your city relating to prostitution? If so, what are its provisions?

2. Is there any law for wilfully or knowingly communicating venereal diseases?

3. What, if any, municipal regulations exist in your city regarding these diseases?

4. What are the accommodations and the number of beds for venereal patients in the hospitals under the jurisdiction of the health board of your city?

At this writing, the following twenty cities have been heard from: Albany, Baltimore, Buffalo, Cleveland, Detroit, District of Columbia, Louisville, Lowell, Minneapolis, Newark, New Orleans, New York, Philadelphia, Pittsburg, Providence, Rochester, St. Paul, Syracuse, St. Louis, Scranton, Worcester.

The summary of these answers elicited the fact that as to question 1, there are in existence the police regulations of the general character, confessedly a dead letter; Detroit and Cincinnati have a regulation on the continental plan. Questions 2 and 3 are in each instance answered in the negative, and as to question 4, there is the usual scarcity of beds for venereal patients, in some cases absolutely out of all proportion to the number of inhabitants.

That the interest towards the recognition of venereal diseases is increasing and that the profession is conscious of the great social danger from it, is shown by the activity of different medical societies in this direction. Among others may be mentioned the State Medical Association of Maine, which had a committee appointed to study the expediency of adding syphilis and venereal diseases to those required to be reported to the boards of health. It will instruct its delegate to vote in favor of a congress. The Missouri Valley Medical Association passed a resolution unanimously endorsing this progressive movement of the American Medical Association, appointing a committee of three to aid this Committee in every way, if so desired. Your Secretary has extended thanks for the offer.

A similar movement was contemplated by the state and provincial boards of health of Vermont. The secretary of the State Board of Health of Iowa expressed his hearty sympathy with the Committee's efforts looking towards the prophylaxis of venereal diseases.

The Board of Health of the City of New York expressed its interest in the matter and hopes that the department can take some action regarding it. The chancellor of the University of Nebraska expressed his sympathy with the movement tending to combat the spread of venereal diseases and most of the city officials to whom the above questions were sent expressed their sympathy with the movement and promised to take steps for municipal control of venereal diseases.

After having passed in brief review the steps taken by your Committee, we may be permitted to deduce from our preliminary study such facts as may perhaps prove of some value or importance in the further consideration of this question. The Committee does not commit itself to any thing except the opinion that it regards the prophylaxis of venereal diseases as of sufficient moment to receive deliberate and careful consideration by this honorable House of Delegates.

The dire consequences of venereal diseases do not only affect the working and earning capacity of the people, but also their well being. The well being of the people is encroached on not so much by the active incidents of these diseases, but much more through their chronic manifestations, especially in women. The tedious and invalidating course of chronic pelvic inflammations, their painful and ever-recurring accidents diminish the exercise of motherly care of the children, forces to relative or absolute inactivity the helpful mate. The working capacity being thus diminished, of course, the earning capacity suffers also, and the type of an ill-nourished, careworn and poverty-stricken family is at hand. Here poverty and squalor are the stranglers of morals, virtue in the children takes its leave, the demon alcohol takes possession of the despairing husband and father, and mute resignation and despair dulls the sensibilities of the wife and mother.

It has been approximately determined that among the communicable diseases in Prussia, typhoid represents a yearly money loss of 8,000,000 marks, while the increased expenses and decreased income caused by venereal diseases amounts to 90,000,000 marks yearly, an amount which supersedes that caused by consumption. But the financial loss is not the important consideration, enormous social danger and consequent social misery. Gonorrhea, especially its latent form, destroys the procreative functions in both sexes; in men through chronic inflammation of the adnexa, causing a zoospermia and necrozoemia (and further stricture and sometimes inflammation of the kidneys). In women through most serious involvement of the pelvic generative organs and their adnexa, destroying fecundity and giving rise to mutilating surgical operations. Eighty per cent. of all deaths from pelvic diseases in women are due to gonorrhea. Twenty per cent. of all blindness is due to gonorrheal infection of the newborn. Fifty per cent. of all involuntary childless marriages are caused by gonorrhea of the female organs of generation, of which 45 per cent. are due to marital infection by men. Taking this view of the existing conditions, the mooted question of "race suicide" so eminently emphasized of late as a voluntary cause of barren marriages, finds its explanation in a quite unexpected but entirely natural, if even in a not quite as voluntary a way as was generally presumed.

The original source of this gonorrheal infection is traceable in about 70 per cent. to prostitutes, and as 80 per cent. of all men had had gonorrhea once or several times, the conclusions reached are obvious.

While almost every prostitute must be looked on as infected with gonorrhea, compilations have shown that about every fourth disseminates syphilis. This means that syphilis is about four times rarer than gonorrhea. But, notwithstanding, it stands higher in its fatality. With lessened morbidity it unites a more profound activity in the visceral organs; it is always a constitutional infection with a high mortality and transmissible through heredity. In contradistinction to gonorrhea, it can be acquired also in a non-venereal way.

In countries of inferior culture, it is disseminated in nine-tenths of all cases in an extragenital way. Syphilis insontium is acquired in about 5 per cent. of all cases. It causes abortion in from 60 to 80 per cent., and propagates this tendency up to the third generation. Marital infection takes place in about 5 per cent. of syphilitic women and from 60 to 80 per cent. of this is due to prostitution.

There are, according to some authorities, 150,000 syphilitics in Berlin, or 12 per cent. of the inhabitants; in Paris, from 13 to 18 per cent. in Copenhagen, 1 of every 55 young men of the age between 20 and 30 has syphilis and 1 in 8 has gonorrhea. In the City of New York the number is estimated to reach 200,000. The same ratio holds good with very little oscillations in every capital or large city.

An approximate idea of the prevalence of venereal diseases can be gotten from the records of the various armies. There, from a body of men living under almost similar social conditions and with every case duly reported, the morbidity from venereal diseases can easily be ascertained. Although very valuable, these statistics, however, do not elucidate conditions in the great mass of the population.

As to the armies, these are the figures per thousand:

Germany	27	Austria	65
Russia	43	Italy	71
France	44	Great Britain	204

(Parliamentary Report, July 15, 1897, made by the Earl of Dunraven.)

The admission rate for the whole army of the United States for 1901 was 133.97 per 1,000. In the Philippines, those diseases have increased materially in their prevalence. In 1901 they constituted 20.42 per cent. of the total sickness, as compared with 8.97 in 1900. In consequence of this dire condition, medical inspection of the troops at regular intervals and reglementation of the prostitutes has been instituted there. The navy of the United States, i. e., the force afloat, participated with 112 per thousand, against 119.7 of the German navy.

A much more reliable statistic, because embracing the whole population, can be gathered from Sweden and Denmark, where, since 1874, venereal diseases are among the reportable contagious diseases. Physicians there are held to make such returns. Every venereal patient is obliged to have himself treated and treatment is given gratuitously. Statistics there show that since 1887 the number of venereal diseases has diminished 34 per cent. In the Dukedom of Braunschweig, where every hospital is open for those afflicted with venereal diseases, constitutional syphilis has greatly diminished in proportion to other venereal diseases.

The latest and most original departure to ascertain the prevalence of venereal diseases was instituted by Prussia. By request of the Government, all venereal diseases coming into treatment on the 30th of April, 1900, had to be collected by physicians and their reports returned for statistical purposes. It appears, then, that on this day there were in the Kingdom of Prussia 40,920 venereal patients under treatment. (Seventy-five per cent. males and returns had in consequence of other errors to be real number of 25 per cent. females.) Among which were 11,000 cases of recent syphilis. But since, only 63 per cent. of all physicians made venereal patients on this day would amount to 64,000, making a yearly aggregate of 773,000 and possibly more venereal patients. This means that in Prussia three-quarters of a million people are afflicted yearly from venereal diseases; or that, out of 22 adults, 1 becomes infected every year. By computation, it has further developed that in Berlin, among men who marry after their 30th year, every one had gonorrhea twice and every fifth was infected with syphilis. These are appalling numbers and far outdistance even consumption.

Finally, we will scan cursorily the hospital facilities of different countries for the treatment of venereal diseases.

In Prussia each venereal patient is admitted to the hospital. The other 28 must either content themselves with dispensary treatment or fall into the hands of quacks. In all Germany only 7 per cent. of venereal diseases are admitted to the hospitals.

The main cause of this dereliction lies everywhere in the insufficient hospital facilities and that facilities are such that hospitals do not admit venereal patients, or only occasionally so; and in the contemptuous and unkind treatment of patients so afflicted. The poorest accommodations, the meanest food are given them and no wonder that they try to avoid the hospital terror.

We must in order to combat venereal diseases, first sterilize its sources, and this can only be done by early and judicious treatment of the afflicted.

London has one general hospital bed for each 1,000 of its population. New York, one bed for each 5,000. London treats 88 per cent., New York only 3½ per cent. of its infectious diseases in hospitals. In order to effectually cope with venereal diseases, London ought to have for its 6,300,000 inhabitants about 2,500 beds for venereal patients, and Greater New York, with its 3,500,000 inhabitants, at least 1,800 beds at its disposition.

In the northern countries of Europe where venereal diseases are classed among the reportable ones, and gratuitous treatment and generous hospital facilities are within reach of every one, venereal diseases have greatly diminished.

Stockholm is in the enviable position of having more beds than needed (366), and complains only of the lack of polyclinics for outdoor patients. In Hungary, the treatment of sick prostitutes as outpatients is strictly forbidden and hospital treatment required; transmission of venereal diseases is made punishable. Punitive legislation against wittingly communicating venereal diseases is in existence in Norway, Denmark and Finland. The countries of middle Europe have no such laws yet.

The foregoing fragmentary statistics will convincingly prove that venereal diseases stand next to tuberculosis and alcoholism, if not superseding them. They are permeating the very root of the population, as 15 to 20 per cent. of adult males are infected with syphilis, and about 80 per cent. of them had gonorrhea, tainting those yet unborn, maiming those born with the virus already in their blood, deteriorating the race, devitalizing the individual.

The dangers from venereal diseases to the people, their socio-economic importance, their causing premature invalidism are of sufficient moment for all governments to exert their utmost to cope with them.

Gentlemen of the House of Delegates: It is a grave responsibility which rests on the shoulders of the medical fraternity. It is a complex and intricate question, consisting of ethico-moral and sanitary-medical components, which forces itself inevitably and in an ever recurring way to the attention of the medical profession. To shirk it, we must not. To evade it, we dare not. To pass it over in silence, we can not!

We are brought face to face daily with the primary and late manifestations of venereal diseases, their devastating influence on the affected, on the family and on the well being of the people in general.

In combating them, we must not fail to take into consideration both components of the question, although in our dealings the sanitary side will be of paramount interest. We can do an enormous amount of good by inculcating in the young sexual purity, respect for women and the possibility of continence. On the other hand, we must insist, in order to combat the spread of the disease and to sterilize its sources, that larger hospital and dispensary facilities should be made available. There has been a most effectual crusade instituted against tuberculosis everywhere. Through a high tax license the barriers against alcoholism are raised. Only against the third curse of humanity—venereal diseases—there is a lack of action, a sin of omission, almost as bad as the sin of commission of sexual profligacy. The legislator does not legislate, the registrator (of the boards of health) does not register it, the hospital does not house it! As Bulkley puts it—ignored through ignorance, neglected through negligence of our duty! So, ostracized and outcasted, venereal diseases, through ignorance, false shame, concealment, prejudice, carry on their slaughter unhampered, unchecked and undisturbed, devastating coming generations, ruining the present one.

Your Committee would most strenuously emphasize the fact that, in its inborn, it has not taken any stand, neither pro or con regarding the licensing or suppression of the social evil. True to the wording of the resolution, it has confined its studies only to the question whether the enormous spread of venereal diseases could be inhibited by a systematized action emanating from the profession. It has come to the conclusion, looking at it from whatever point of view, it is the medical profession which will have the decisive word in the premises. It is convinced that the profession, to which the first and ultimate appeal for help is made by the afflicted, is, in consequence of its intimate relation to the physical ailments of humanity, well able to cope with both components of the question. The unselfish perception of its duties will and always did prompt the medical profession to exert an educational as well as sanitary influence towards the diseased in body and towards those morally dejected.

Your Committee, therefore, is impressed that, inasmuch as only a concerted action is promising of results, it is incumbent on the medical profession to discuss and recommend means and ways against the great and growing danger of the most serious and lasting of all contagious diseases that afflict humanity. It most respectfully recommends to the honorable House of Delegates that a national congress for the prophylaxis of venereal diseases should be convened under the auspices of the American Medical Association. This will mark an epochal event in the history of this great national body of medical men, to have contributed their mite towards the welfare of the people, by endeavoring to check the spread of some of the most persistent and virulent poisons conveyed into the blood of the people. Your Committee respectfully submit, in a preliminary way, the following points which would serve as a basis for such a congress.

First.—As the states can not with impunity ignore the existence of venereal diseases, and as it is the duty of the state to protect the people from the ravages of contagious diseases, there should be instituted through the state and district societies a propaganda of action in each state or district society looking towards a proper recognition of venereal diseases by the different legislatures.

Second.—That the American Medical Association authorizes its accredited delegates from each state, or by appointing special committees for this purpose, to organize such a movement in their respective state and district societies and to send delegates to such a congress.

Third.—That such delegates may then, fortified by the authority of the American Medical Association, in such a congress convened, bring to bear on their home legislature the necessity of legislation against the spread of venereal diseases.

Fourth.—To appoint a central committee of organization to be in touch with the various state committees.

The congress would discuss and act on the following questions:

SOCIAL MEASURES.

Prostitution.—Its causes and how to diminish its extent. (*a*) Safeguarding minors. (*b*) By raising the age of consent. (*c*) Socio-economic measures. (*d*) Educational measures. (*e*) Creation of a provident education law.

SANITARY MEASURES.

Prophylaxis by Treatment.—(*a*) Making venereal diseases reportable without giving names and addresses, solely for statistics of morbidity. (*b*) Liberal and enlarged hospital and dispensary facilities, with gratuitous treatment.

LEGISLATION.

(*a*) State laws against diffusing syphilis and venereal diseases in an extragenital way. (*b*) Certifying the health of wet nurses. (*c*) Regulating the profession of ritual circumcisors, of barbers, of dentists. (*d*) Trade sanitary laws against transmission of syphilis (glassblowers, cigarmakers, manicurists, etc.).

INDIVIDUAL PROPHYLAXIS.

(*a*) By teaching the avoidance of dangerous contact. (*b*) By instructing the diseased how to avoid infecting others.

MISCELLANEOUS MATTERS.

(*a*) Recommending a uniform nomenclature. (*b*) Broader education of medical students in venerology. (*c*) National and international statistics. (*d*) To petition the Congress of the United States for the creation of a Cabinet position to be called Department of Health. (*e*) Creation of societies to wage battle against the spread of venereal diseases like the Société Internationale de Prophylaxie Sanitaire et Morale, in Brussels, in connection with the international conference held there. And the German society of Berlin for combating venereal diseases; with periodicals issued by such societies.

The name of the congress to be National Congress for the Prophylaxis of Venereal Diseases, under the auspices of the American Medical Association. Respectfully submitted,

Henry D. Holton, Ludwig Weiss, George M. Kober, W. H. Sanders, L. Duncan Bulkley, Louis E. Schmidt, Committee.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Asthma.

The following combination appears in the "Indian Med. Record," and is recommended in the treatment of bronchial asthma:

R.	Pot. iodidi	gr. x	65
	Spts. ammon. arom.	m. xx	1 30
	Spts. etheris sulph.	m. xx	1 30
	Tinct. belladonnæ	m. x	65
	Aquæ camphoræ	ʒi	30

M. Sig.: To be taken at one dose.

The author places emphasis on the good effects of the potassium iodid, especially in those cases accompanied by a bronchitis. The dose of this preparation may be repeated three or four times a day, and gradually increased to thirty (2.00) or forty (2.65) grains at a dose.

He recommends it given in a glass of milk, without any admixture of syrup and on an empty stomach. When combined with potassium carbonate the iodin is not set free in the stomach, and consequently prevents disturbance of that organ. It may be combined with ammonium preparations which act on the skin and so relieve the mucous membranes.

Poulet, in "Bul. Gen. de Ther.," recommends the following combination containing oxalic acid in the treatment of asthma and capillary bronchitis:

R.	Acidi oxalici	gr. xxx	2
	Sodii bicarb.	gr. xlviii	3 20
	Syr. aurantii	ʒii	60

M. Sig.: One tablespoonful every hour.

In ordinary forms of bronchitis, "Press Medical" recommends the following:

R.	Thiocol	gr. xxx	2
	Sodii benzoatis	gr. xxx	2
	Tinct. aconiti	m. xx	1 30
	Aq. laurocerasi	ʒiiss	10
	Syr. senegæ q. s. ad	ʒv	150

M. Sig.: One tablespoonful three times a day.

Robin recommends the following in chronic bronchitis:

R.	Antimonii oxidi (white)	gr. viii	50
	Syr. ipecac.	ʒii	8
	Terpin hydratis	gr. iii	20
	Dionin	gr. 1/6	01
	Mist. acaciæ	ʒiv	120

M. Sig.: One tablespoonful several times a day.

Iodin Solution for Furuncles.

According to an abstract in the "Med. Standard" Gallois and Courcoux recommend the employment of a concentrated solution of iodin in acetone in the treatment of boils, as acetone will hold in solution four times as much iodin as alcohol. The following formula is advised:

R.	Iodi (metallic)	ʒi	4
	Acetone	ʒiiss	10

M. Sig.: Apply locally to the inflamed part.

This preparation produces only slight pricking sensation to the unbroken skin, but sharp pain is experienced if applied after the boil is opened. It is claimed that a boil, by this means, may be arrested before it reaches the suppurative stage.

Effects of Tight Diapers.

Dr. Alfred C. Cotton, in an article in "Arch. of Ped.," condemns the effects of tight diapers as being the cause of deform-

ity by compression on the tissues which are still in the formulative period. Skiagraphs are given, showing the results of pinning diapers of firm, unyielding substance tightly around the pelvis, thus producing a retardation of its growth. The thorax, according to the author, may likewise be constricted. Genu valgum may be produced by wadding a lot of diaper material between the thighs. The material should be light, made of absorbent cotton, covered with cheese cloth. The clothing should be supported from the shoulders. Knitted, seamless underclothing may be worn.

Pertussis.

The following combination is recommended by the "Month Cyc. of Med." as a local application in the treatment of pertussis:

R.	Acidi carbol. crys.	gr. xv	1
	Sol. cocainæ hydrochlor. (2 p. c.)	m. lxxx	5
	Glycerini	ʒiv	15

M. Sig.: To be brushed over the pharynx before or between the paroxysms.

Yeo recommends the following combination as a favorable mixture in lessening the severity of the paroxysm and rendering the mucous less tenacious:

R.	Sodii benzoatis	gr. lxxii	5
	Sodii bicarb.	gr. xlviii	3 | 20
	Ammonii chloridi	gr. xxiv	1 | 65
	Aquæ chloroformi	ʒi	30
	Aquæ anisi q. s. ad	ʒiii	90

M. Ft. mistura. Sig.: One to four teaspoonfuls, according to the age of the child, in a little hot milk, every four hours.

Syphilis.

The treatment of syphilis, according to W. D. Trentwith, in "Med. News," should be divided into four stages, as follows:

1. The pre-eruptive period.
2. The eruptive stage, including the first six or seven months.
3. From the sixth or seventh month to the end of the second or third year.
4. The tertiary stage.

In the pre-eruptive stage attention should be given to the general condition of the patient. Smoking or chewing tobacco and the use of alcoholics should be stopped and the patient given plenty of fresh air and a nutritious diet. If the chancre does not properly heal it should be washed with castile soap twice a day, followed by a 1 to 2,000 bichlorid solution and that followed by an application of lint saturated with the same solution or a 50 per cent. solution of lotio nigra. If an indurated nodule remains after the sore has healed, the author recommends the application of a 50 per cent. mercurial ointment. In the same way an application can be made to the inguinal glands as soon as any enlargement is made out, applying about gr. 15 (1.00) of the ointment and rubbing it in well each night. The mouth and teeth should be carefully looked after in order to prevent lesions in the oral cavity if possible. As an antiseptic tooth powder he recommends the following:

R.	Potass. chloratis	ʒss	15
	Pulv. saponis	ʒiss	45
	Olei gaultheriæ	m. iii	20

M. Sig.: As a tooth powder; or:

R.	Potassii chloratis	ʒi	4
	Aquæ	ʒviii	240

M. Sig.: As a mouth wash, to be used several times through the day.

In the eruptive stage the treatment should be promptly carried out. It is on the new, young cells, according to the writer, that mercury is most destructive, so that loss of time in its administration diminishes to that extent the patient's chance for recovery. He sometimes begins with the protoiodid of mercury in doses of gr. 1/8 (.008) to gr. 1/4 (.0015) three times a day. This may be continued two or three weeks. He prefers, however, inunctions rubbed thoroughly into various portions of the body, naming the ten or eleven selected areas, not omitting the spaces between the fingers and the toes, the palms of the hands and the soles of the feet. A 50 per cent. mercurial ointment is used so divided that thirty or forty grains may be used at each inunction. The patient is instructed to take a warm bath daily or to cleanse the region to which the ointment is to be applied and then thoroughly rub it in; from fifteen to thirty minutes being required before all the ointment disappears.

Each part of the body should serve its term until the body is entirely covered; at the same time the indications of too large doses should be watched for, such as salivation, anemia, loss of weight, etc., when the ointment should be omitted for a few days and again resumed in smaller doses. Elimination by the bowels must be carefully inquired into.

If no untoward symptoms arise the daily amount of the ointment may be raised to gr. 45 (3.00) and finally to gr. 60 (4.00). The inunctions are stopped, and after one or two days potassium iodid begun, commencing with ten drops (.65) of a saturated solution, well diluted and gradually increasing it to twenty (1.20) or twenty-five drops (1.65) three times a day. This should be continued for 15 or 16 days, when the inunctions are repeated for 10 to 11 days, followed by the potassium iodid for 15 or 16 days. This plan should be carried out until the sixth or seventh month, in which time the entire body will have been covered from seven to twelve times. The author then advises a rest of three or four weeks, when he places the patient on the following mixed treatment:

R.	Hydrarg. biniodidi	gr. 1/30-1/24	.002-.0025
	Potassii iodidi	gr. v-xv	30-1.00
	Aq. destil. q. s. ad	ʒi	4

M. Sig.: At one dose, to be repeated three times a day in plenty of water. The foregoing mixed treatment is prescribed, with intermissions, occasionally, of three to four weeks, until twelve or thirteen months have passed, after which time potassium iodid is given, in doses reaching gr. 50 (3.30) to gr. 60 (4.00) three times a day, about two months out of every four, and changing to the mixed treatment at times. This treatment is continued to the second year, when no bad signs being present the treatment may be stopped and the patient kept under proper observation.

For the treatment of mucous patches the author recommends an application of a 5 per cent. solution of silver nitrate every other day and the use of a gargle as follows:

R.	Hydrarg. bichloridi	gr. iii	20
	Tinct. myrrhæ	ʒss	2
	Aquæ destil. q. s. ad	ʒviii	240

M. Sig.: As a gargle; or:

R.	Alumeni	ʒi	4
	Potass. chloratis	ʒiss	6
	Aq. destil.	ʒviii	240

M. Sig.: To be used as a gargle.

The treatment of salivation should consist in stopping the inunctions, moving the bowels with salts (either Rochelle or Epsom). In cases where syphylides or gummata reappear large doses of potassium iodid are given internally and inunctions applied or calomel fumigations may be employed or a local application applied as follows:

R.	Hydrarg. bichloridi	gr. i	06
	Collodii	ʒi	30

M. Sig.: Paint over the affected area and renew from time to time.

As a fumigation the following:

R.	Hydrarg. chloridi mitis	gr. xx	1 | 30
	Cinnabar	gr. xl	2 | 65

M. Sig.: As a fumigation.

Fumigation and the hypodermic method are both of value when other methods fail.

Tabes Dorsalis.

Dr. C. Pope, in the "Alienist and Neurologist," states that he has never seen any benefits derived from mercury in either large or small doses, nor from a course at Hot Springs, but on the other hand untoward results have been observed. The only preparation from which he has obtained the expected results is silver nitrate in doses of grain 1/6 (.01) to 1/4 (.015) given three times a day, one or two hours after each meal. The crisis is best treated by morphin, used with great caution. Strychnin should be rarely used, and when given it should be administered in very small doses.

Peritonsillar Abscess.

The following is recommended by the "Phil. Med. Jour." in the treatment of quinsy:

R.	Ichthyol	3iii	12 |
	Ung. belladonnæ	3ii	8 |
	Olei citronellæ	m. iii	20
	Adipis lanæ hydros.	3iii	12 |

M. Sig.: To be applied externally.

Medicolegal.

Power of Board to Revoke License for Immoral Conduct.—Chapter 254 of the Laws of Kansas of 1901 provides, among other things, that the state board of medical registration and examination may refuse to grant a certificate to any person guilty of felony or gross immorality, and may, after notice and hearing, revoke the certificate for like cause. The Supreme Court of Kansas says, in the case of William M. Meffert vs. the State Board of Medical Registration and Examination, that a surfeit of authority might be cited holding that the state, in the exercise of its police power, may prescribe the qualifications which a physician must possess before entering on the practice of medicine or surgery. The State Board of Medical Registration and Examination is not a judicial tribunal; while it may be said to act *quasi* (as if) judicially it is only a ministerial board and performs no judicial functions. It is classed with such boards as the county boards of equalization, boards for the examination of applicants for teachers' certificates, city councils in granting and refusing a business or occupation license, and numerous other boards of similar character. Such boards perform no judicial functions, are not judicial tribunals, and have never been classed as such. It was contended that the procedure before the board in the admission and rejection of evidence was violative of the rights of Meffert, in that the evidence received and acted on was made up largely of unsupported accusations, hearsay and street rumor, and was not sufficient to sustain the findings. The provisions of the act creating the board, the court goes on to say, plainly indicate that such investigation was not intended to be carried on in observance of the technical rules adopted by courts of law. The act provides that the board shall be composed of seven physicians. These men are not learned in the science of law, and to require of a board thus composed that its investigations should be conducted in conformity to the technical rules of a common law court would at once disqualify it from making any investigation. It is subversive of the morals of the people and degrading to the medical profession for the state to clothe a grossly immoral man with authority to enter the homes of her citizens in the capacity of a physician. It was the intention of the legislature to adopt a summary proceeding by which the morals of the people and dignity of the profession might be protected against such a possibility without being embarrassed by the technical rules of proceedings at law. Meffert was timely notified of the charges preferred against him and the time when a hearing would be had and was given ample opportunity to refute such charges. The findings by the board are conclusive on this court. Next, it was contended that the immoral conduct with which this party was charged was not practiced in the line of his profession, therefore not cognizable by the board, and the court says that it only mentions this contention to condemn it. The law is not that the board must find that such person has been grossly immoral with his patients, but that he is grossly immoral in his general habits. The object sought is the protection of the home of the sick and distressed from the intrusion therein, in a professional character, of vicious and unprincipled men—men wholly destitute of all moral sensibilities. It was not the purpose of the lawmakers to clothe a man with a certificate of moral character and send him out to prey on the weak and unsuspecting, on those who would be entirely at his mercy, and quietly await the accomplishment of that which observation and experience has taught us is certain to follow before depriving such person of the endorsement which gave the opportunity to commit such wrong. The law disqualifies one guilty of a felony. It would hardly be contended that the felony for which a license may be revoked must have been committed on a patient or against the property of a patient, or while such physician was attending a patient. Nor does the court agree with the contention that to deprive a physician of his right to practice medicine otherwise than by a judgment or forfeiture by a judicial tribunal violates the fourteenth amendment to the constitution of the United States, which forbids any state to deprive any person of property without due process of law. It says that we have seen that it is within the police power of a state to prescribe the qualifications of one desiring to practice medicine, and also to provide for the creation of a board or tribunal to make the examination and determine whether the applicant for a license to follow this profession possesses the required qualification, and, if so, to issue to him such license. It must follow that the state may confer on the same board or tribunal the power to revoke such license, if it should thereafter be made to appear that the license should not have been issued, or if for any reason the holder thereof since its issuance had become disqualified. This constitutional provision is not a restriction or limitation on the police power of the state to pass and enforce such laws as in its judgment will inure to the health, morals or general welfare of its people. Such power is reserved to the state, and has been so recognized by all courts since the adoption of this amendment. Another contention was that the state board of medical examiners had no power to revoke the license theretofore issued, because the acts for which the commission was revoked, if committed at all, were committed before the passage of the law creating the board and, therefore, as to such acts the law was *ex post facto*. But the court says that an *ex post facto* law is meant one which imposes a punishment for an act that was not punishable at the time it was committed or imposes an additional punishment to that then prescribed, etc. The revocation of a license to practice medicine for any of the reasons mentioned in the statute was not intended to be, nor does it operate as a punishment, but as a protection to the citizens of the state; such requirements go to his qualifications, and where the qualification imposed is reasonable, one has no right to complain that he is deprived of the right to practice his profession because he has not conformed to such reasonable regulations. If the revocation was intended as a punishment, there might be force in this argument, but, since the only purpose of the law was to require a certain standard of morals of the physician, the argument is without force.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Philadelphia Medical Journal.

April 25.

1 Problems in Sanitation. Henry D. Holton.
2 *The Association of Tabes and Multiple Sclerosis: Report of a Classical Case of Tabes with Intention Tremor and Nystagmus. Charles J. Aldrich.
3 *The Curative Powers of the X-Rays upon Lupus and Malignant Growths, with Reports of Cases. Thomas J. Buchanan.
4 *Splenic Anemia, Note of a Case. A. L. Benedict.
5 Report of a Case of Cranial Fistula Cured by Operation. J. A. Keown and E. B. Schallenbach.

2. **Tabes and Multiple Sclerosis.**—The case reported by Aldrich gives a perfect type of intention tremor with nystagmus in a classical tabetic, yet, in view of the man's age and the fact that we may have nystagmus in locomotor ataxia as well as motor irritations and intention tremor, he sees no necessity of complicating our pathology by assuming simultaneous existence of the two diseases.

3. **The X-Rays.**—Buchanan reports and illustrates a case of epithelioma and lupus treated by the *x*-rays. He holds that they act in carcinoma largely through disturbance of the trophic nerves supplying the blood vessels and skin and interfering with the blood supply of the neoplasm with subsequent atrophy. His conclusions are given as follows:

1. Superficial epitheliomata, lupus, rodent ulcers, eczema and many kindred skin affections can positively, in many cases, be cured with the *x*-rays.
2. The growth of deep-seated carcinomata can sometimes be retarded, and the pain very much lessened by means of the *x*-rays, but that such patients can be permanently cured is, as yet, not demonstrated.
3. A tube of medium-high vacuum is better suited for *x*-ray therapy than a tube of low power, particularly for deep-seated carcinomata.
4. The part exposed should never be nearer the tube than 12 inches.
5. An exposure should never last longer than 5 or 10 minutes at one sitting.
6. An interval of three or four days should intervene between each sitting.
7. In order to produce a cure it is neither necessary to produce a burn nor to cause any reaction whatever.
8. All cases of inoperable carcinomata, sarcomata, etc., should be treated with the *x*-rays before they are abandoned as hopeless.
9. The operator must be one well skilled in the use of the *x*-ray apparatus.
10. After the suspension of treatment, carcinomata show a strong disposition to return quickly.

4. **Splenic Anemia.**—After reporting a case, Benedict suggests the probability of the occasional relations of hepatic sclerosis to splenic anemia.

Medical News, New York.

April 25.

6 *The Treatment of Syphilis. W. D. Trenwith.
7 *The Treatment of Acute Gout. J. R. Clemens.
8 *Chronic Parenchymatous Pulmonary Tuberculosis. Wm. N. Beggs.
9 *Spinal Cord Injury, So-called Concussion of the Cord. Frank Parsons Norbury.
10 Report of a Case of Monocular Inferior Hemianopsia. E. S. Saylor.
11 Hydragogin—Some Observations upon Its Use in Diseases of the Heart and Kidneys. M. Loewenthal.
12 The Use of Normal Salt Solution. Harry F. Thompson.

6.—This article is noticed in the Therapeutic Department.

7.—Ibid.

8. **Tuberculosis.**—The form here described by Beggs under the title of chronic parenchymatous pulmonary tuberculosis, consists in a general inflammation of the lung substance. The designation he considers is not satisfactory. We might call it pan-pulmonary tuberculosis, but there are objections. In all forms the parenchyma is involved and in the present form all the pulmonary structures are equally affected. He thinks the type is worthy of attention and recognition for the following reasons:

1. It is a perfectly characteristic type of pulmonary tuberculosis, distinctly different from those generally recognized. 2. It is constant in its progress and bad in its prognosis. It is scarcely less fatal than phthisis florida though its duration is longer. 3. It is very insidious, and this tends to cause error on the part of the physician and a mistaken sense of security to both patient and medical adviser. 4. The preceding two reasons render its early recognition of great importance to both physician and patient.

9. **Spinal Concussion.**—Norbury reviews the conditions and concludes that the underlying lesion, as far as the cord is concerned, is a disturbance of the circulation and injury to the blood vessels. Intramedullary hemorrhage, he thinks, is the result. It is impossible to eliminate the psychic element altogether, but pathologically, while more or less speculative, there is a leaning toward the injury theory.

American Medicine, Philadelphia.

April 25.

13 On Volumetric Testing for Sugar. John Marshall and Leon A. Ryan.
14 *A Contribution to the Study of Manubrial Dulness, Especially as Related to Enlarged Bronchial Glands. H. B. Whitney.
15 *A Study of Weights in Pulmonary Tuberculosis. Lawrason Brown.
16 Wounds of the Thorax. Isaac R. Trimble.
17 Transient Unilateral Ophthalmoplegia Exterior of Peripherical Origin with Atrophy of the Optic Nerve. Charles J. Kipp.
18 *Glycosuria Gravidarum. William Ruoff.
19 The Bureau of Government Laboratories for the Philippine Islands: Scientific Positions Under It, Etc. Richard P. Strong.

14. **Manubrial Dulness.**—Whitney reports cases with illustrations showing the areas of manubrial dulness in connection with enlargement of the bronchial glands. In all the cases the chief enlargement was toward the left side, contrary to the dulness of aneurism, which is generally on the right. Pressure symptoms may be very pronounced and the value of this little point is considerable.

15. **Tuberculosis.**—Brown has studies the weight variations in tuberculosis and concludes that the decrease is due to toxic absorption. It is not the amount eaten but the amount assimilated that is of value to the consumptive. Carefully regulated rest and exercise are of most importance as regards the bodily weight in pulmonary tuberculosis. Forced exercise should be avoided; change of residence or climate may aid in assimilation. An excessive gain in weight may be a bad sign. The gain in weight is usually first evident on the chest, next on the abdomen in men and the hips in women. A constant rapid loss of weight indicates as much as any other phenomena that the patient is losing ground, while the gain of a few pounds is of little value in the prognosis, but if the gain is continuous over a period of two or three months, the patient is probably improving. A gain of weight is no sure sign of betterment, but on the whole the patients who gain over twenty pounds do better than those who do not. Sunshine and dryness are not necessary factors to gain in weight; cold weather stimulates assimilation and gain in weight more than warm weather.

18. **Glycosuria Gravidarum.**—This condition is studied by Ruoff, who reviews the cases he has collected from the literature and reports his personal observations. He sees no special difference between glycosuria in the pregnant woman and that in other conditions. It may develop during pregnancy or pregnancy may occur after the establishment of the disease, and in the latter event its malignant character is soon established. The infants usually die early. The conclusions are given as follows:

Glycosuria gravidarum may arise at any stage of pregnancy. It is not so serious as when diabetes antedates pregnancy.
It may disappear in one pregnancy and reappear in another, and end fatally after successive attacks. It frequently arises during parturition, but is of no great importance.
Labor is not materially affected, other conditions being equal.
Pregnancy is most likely to be interrupted.
Is very destructive to the fetus. More so than syphilis.
Maternal mortality is nearly 50 per cent.
Diabetics should not marry.
Death is usually by coma, no case of eclampsia having ever occurred in a diabetic.

Medical Record, New York.

April 25.

20 *Observations on Some Limitations of Diagnosis. Edward G. Janeway.
21 *The Toxicity of Appendicitis, with a Report of Two Cases of "Appendicular Vomito Negro." George R. Fowler.
22 *Cardioptosis and Its Association with Floating Liver. Max Einhorn.
23 *The Pathogenesis of Diabetes. Henry S. Stark.
24 A Case of Acute Dilatation of the Right Side of the Heart. P. P. M. Jorgensen.
25 Tumor Complicating Labor. George W. Squires.

20. **Limitations of Diagnosis.**—Janeway calls attention to the possibility of errors in diagnosis, and especially to the importance of study of the history and antecedents. This is practically illustrated in contagious diseases. He mentions variola, a type resembling varicella and the confusion that has taken place, and also purpuric forms. He gives instances of the difficulties of investigation of typhus and typhoid, and the importance of the diagnosis of gastric ulcers and growths, the confusion between general syphilis and tuberculosis in certain cases, between the various forms of heart disease, etc., all illustrating the limitations of diagnosis and the necessity of a careful study of the histories and antecedents.

21. **Appendicitis.**—The toxicity or toxic effects of appendicitis on the organism are especially noted by Fowler, who particularly calls attention to the complication of vomiting of blood which Kirmisson seems to have been the first to observe. It has also been noticed by Nitzsche, Dieulafoy, and the author, who reports two cases of his own observation. He thinks the occurrence of hematemesis adds another to the already long list of the grave complications of appendicitis. In one of his own cases emboli of the gastric mucosa were found, which fact did not agree with Nitzsche's findings.

22. **Cardioptosis.**—Einhorn first reviews the literature of cardioptosis and then describes the symptoms, reporting cases. He finds that emaciation, enteroptosis and neurasthenia all seem to play an important part in its etiology, but are not alone sufficient to cause it. It is less likely to occur in women, which fact he attributes to their habit of wearing corsets, which serve as a preventive. The chief symptoms are palpitation, brachycardia, tachycardia, etc., and occasional in-

ability to lie on the left side, none of which are absolutely characteristic of this condition. In nearly one-half the cases general enteroptosis is found. It does not endanger life and its subjective symptoms may be alleviated or removed. The main hopes of treatment are improvement of nutrition and strengthening of the nervous system. He also advises avoidance of the stooping position, and sleeping with the head and thorax as nearly horizontal as possible. Direct supports are hardly indicated, though he mentions the possibility of their being of some little use.

23. **Diabetes.**—Reviewing the theories of diabetes, Stark concludes with the following statements:

1. The exact truth of the pathology of diabetes is not known. 2. There are no acknowledged and constant, anatomic appearances of liver or pancreas associated with diabetes. 3. There are no characteristic lesions in any other organ. 4. An impairment of the physiologic functions of the ductless glands may be at the root of the disease. 5. Artificial glycosuria is not diabetes. The facility with which this phenomenon can be elicited, implies its insignificance as a pathologic factor. 6. As far as can be ascertained from competent sources, there is hope that the vacuum in our knowledge of the nature of diabetes will soon be filled.

Boston Medical and Surgical Journal.

April 23.

26 *The Reaction Time of Corrosive Sublimate in Different Dilutions Against Various Species of Bacteria. Charles Harrington and Harold Walker.
27 *The Cortical Cell Changes in Epilepsy; Their Significance and Clinical Interpretation. L. Pierce Clark and Thomas P. Prout.
28 Double Uterus and Vagina. C. H. Hare.
29 A Case of Uterus Bicornis Duplex, with Two Cervical Canals Above One External Os and Stricture of Vagina. W. L. Burrage.
30 Pregnancy in a Uterus Bicornis Simulating Extra-uterine Pregnancy. Frank A. Higgins.

26. **The Bactericidal Action of Corrosive Sublimate.**—Harrington and Walker have experimented on bacteria with solutions of corrosive sublimate, 1 to 1,000, 1 to 5,000, and 1 to 10,000. The authors find that the different species and different cultures of the same species vary considerably in their resistance to corrosive sublimate. In some species the resistance is markedly diminished by dryness, so that even the 1 to 10,000 solutions can destroy the germs in a short time. Some species, however, are not materially affected by dryness, thus the typhoid bacilli is much more resistant when dry than the diphtheria germ. Corrosive sublimate in as weak a solution as 1 to 5,000 is ineffective against the common pathogenic bacteria, including the pus organisms, when they are moist, excepting after prolonged contact. Since fifteen minutes' contact is not sufficient for the destruction of the *B. coli communis*, *B. pyocyaneus* and *Staphylococcus pyogenes aureus*, whether moist or dry, the use of this and of weaker preparations in surgical work and for irrigation and similar purposes should be abandoned. The 1 to 1,000 solution of corrosive sublimate is very slow in its action on some of the commonest of the skin bacteria, and since under the most favorable conditions more than ten minutes' contact may be necessary for it to kill *Staphylococcus pyogenes albus*, it should not be relied on to any great extent to ensure sterility of the hands or of instruments. The mere dipping of the hands for a few seconds into solutions of this strength can serve no useful purpose, but may lead to a false sense of security. Absolute dryness of the bacteria would be essential for the method to be effective, but this can not be insured. In any of the strengths commonly used it is a much overrated disinfectant and under the best conditions is so uncertain in its action that it would be of advantage to abandon its use altogether in surgery.

27. **Epilepsy.**—Eighteen cases of epilepsy from the Craig Colony, 7 of which died during status epilepticus, were examined microscopically as to the changes in the cortical cells and are reported by Clark and Prout. For comparative study, sections of normal brain were also used. The special conditions found in the cortical cells, especially in those of the second layer and other cells of that type, were striking and differed only in degree in the different cases. The cells were swollen, with chromatic substance almost entirely gone. The nucleus was often swollen out of proportion and ill-defined. The nucleus itself presented a finely granular appearance, and in many cases the nucleolus was dislocated in the process of section cutting. This artefact is much more frequent in these cases than in normal brains. The authors think these facts point to a destruction and ultimate disappearance of the cell as a unit in the cerebral cortex. They do not claim that this represents the final pathology of epilepsy, but the conditions indicate cell death, and teach us something as to the manner of its occurrence. The constancy of the lesion warrants the general conclusion as to the significance of the epilepsy lesion. Epilepsy they say must be considered a sensory phenomenon with motor manifestations. This is also supported by the fact of the action of the bromids, which appear to be effective on the sensory type of cells of the cortex. The anatomic and physiologic integrity of the large motor cells in the cerebral cortex shows the autonomy of these elements. They draw deductions as to the treatment and further study of the disorder from these facts. We should endeavor to exclude toxic agencies, overcome hereditary tendencies, by regulating the diet, exercise, etc., and using the bromids.

New York Medical Journal.

April 25.

31 The American Italy. Charles E. Nammack.
32 *The Kidney of Pregnancy. John O. Polak.
33 *Report of a Case of Infection by the Bacillus Coli Communis. A. Jacoby.
34 *The Surgical Treatment of Empyema. Frank McMorrow.
35 *Fatal Meningitis with Myosis and Salivary Suppression as the Only Symptoms—Autopsy—A Study in Diagnosis by Exclusion. H. Altshul.
36 Sarcoma of the Femur Following Traumatism: Amputation at the Hip-Joint by Wyeth's Method. George S. Brown.
37 *The Surgical Treatment of Ascites of Hepatic Cirrhosis, with Report of a Case. L. W. Pearson.
38 Operation in a Case of Extradural Hemorrhage the Result of Whooping Cough. George S. Brown.

32. **The Kidney of Pregnancy.**—This kidney, according to Polak, is one in which there are no inflammatory changes, but which presents a fatty infiltration of epithelial cells lining the uriniferous tubules, with anemia of the organ. The more recent opinion in regard to the changes is that they are due to imperfect metabolism and a sort of autointoxication. The indications of albumin in the urine as regards prognosis, etc., are noted. It may occur with pregnancy in the healthy woman, and is known to be present in about one-third of the cases of labor. The kidney of pregnancy in the latter part of the period is often to a certain degree pathologic, especially with primiparæ. There is liable to be more or less edema of the legs, but the condition returns to the normal immediately after delivery. The transition from the normal to the pathologic one is, however, very insidious and gradual, often culminating in eclampsia, which the author considers due to a combined toxemia produced by defective elimination from all the emunctories, but particularly the intestinal tract. When the preeclamptic state is recognized by urinary examination and the toxic symptoms like headache, neuralgia, nausea, edema, etc., the amount of nitrogenous food should be reduced and the absorption of toxic materials in the intestines and the tissues of the body be prevented and their elimination assisted by the bowel, liver, kidneys, skin and lungs. If absolutely necessary, remove the source of fetal metabolism and irritation by emptying the uterus.

33. **Infection by the Bacillus Coli Communis.**—Jacoby reports a case resembling typhoid fever, with the negative Widal reaction and the presence of *Bacillus coli communis* in large numbers in the urine. The autopsy showed no inflammatory condition of Peyer's patches, but a general congestion of the ileum and jejunum mucosa.

34. **Empyema.**—McMorrow emphasizes the importance of free opening in the pleural cavity in cases of empyema so that there can be no chance for retention of irrigated fluid or putrid secretions.

35. **Meningitis.**—From a study of his case, Altshul concludes:

1. That extensive meningitis can exist without giving rise to its characteristic and usual symptoms.
2. That sepsis does not always cause changes in pulse and temperature, and that their being normal does not warrant our excluding this condition.
3. That a spasmodic and complete occlusion of the ureter, which is not due to impaction of renal calculi, may last for some time and thus prevent the detection of extensive pyonephrosis.
4. That myosis and salivary suppression may be the first symptoms of meningitis or myelitis.

37. **The Talma-Morison Operation.**—Pearson reports a case and discusses the value of the Talma operation. He admits that it will often cure ascites, but some of the patients will nevertheless die of hepatic cirrhosis. It is often employed too late to be a fair test of the value of the operation. He thinks that a certain percentage of cases may be permanently benefited and hopes that future experience will be more cheering than that of the past.

St. Louis Medical Review.

April 18.

39 *Street-Car Colds. Fayette C. Ewing.

39. **Street-Car Colds.**—The cautions sent out by the Chicago Health Board are noticed by Ewing, who considers the conditions for acquiring street-car colds are far worse in St. Louis than in Chicago. He lays special stress on the importance of traveling on ill-ventilated street cars for long distances, and thinks that cars making long runs, compelling long-distance passengers to endure a temperature under 60 F., should be condemned as dangerous, and a menace to the health of the passengers.

Cincinnati Lancet-Clinic.

April 25.

40 *Lupus and the Finsen Ray. M. L. Heidingsfeld.
41 *A Résumé of Rectal Diseases. George J. Monroe.
42 Diet and Arterio-sclerosis. A. E. Powell.
43 Surgery of the Prostate, Pancreas, Diaphragm and Spleen (Surgery of the Pancreas). (Continued.) B. Merrill Ricketts.

40. **Lupus.**—Heidingsfeld describes the apparatus and reports several cases refractory to the *x*-ray, but relieved by the Finsen method.

41. **Rectal Diseases.**—Monroe criticises Pennington's operation for hemorrhoids, claiming that it is no improvement on the other methods of ligation, clamp and cautery, injection, and the Whitehead method.

Northwest Medicine, Seattle, Wash.

February.

44 *Uretero-cystostomy, with Traction on the Ureter. Clarence A. Smith.
45 *Beri-beri, a Clinical Study. John W. Bailey.
46 Surgery in and Around the Gall Bladder and Ducts. Casper W. Sharpless.
47 *Appendicular Dyspepsia. James B. Eagleson.

March.

48 The Causes and Treatment of Hydronephrosis. J. Wesley Rovĕe.
49 A Report of Typhoid Fever Cases. Charles B. Ford.
50 The Behavior of the Iris in General Diseases. Hamilton Stillson.
51 *Post-Operative Hematemesis. Kenelm Winslow.

44. **Uretero-Cystostomy.**—Smith's article is a report of the experimental studies of anastomosis of the bladder and ureter under tension. He finds that by the use of an oblique anastomosis the ureter and the bladder may be united whenever they can be approximated in spite of tension. Nephritis and atrophy of the kidney on the side operated on may be a consequence, but this condition may follow any operation for uretero-cystostomy.

45. **Beri-Beri.**—Bailey's article is an interesting clinical study of beri-beri as observed among the Japanese in a small settlement on Vancouver Island. His observations seem to favor the dietetic origin of the disease, a too exclusive diet of rice being conducive to the condition.

47. **Appendicular Dyspepsia.**—The dyspepsia preceding many cases of appendicitis is considered by Eagleson as not an etiologic factor, but, as a rule, the result of irritation around the appendix. He supports this view by various quotations as to the pathologic process and his own personal experience. From his study he concludes that there is a form of dyspepsia of appendicular origin, largely reflex in one class of cases, depending on the presence of a fecal concretion within the organ, or a slight ulceration or catarrhal condition of its mucosa. In another class of cases it is mechanically caused by an obstruction or irritation resulting from adhesions following a more or less acute attack of inflammation at some previous time. Such cases are suitable for surgical treatment. In case of chronic dyspepsia the condition of the appendix should be studied. When the disease has resisted all medicinal treatment and its origin has been diagnosed as appendicular, an operation should be advised.

51. **Post-Operative Hematemesis.**—Winslow reports a case occurring in his own practice. No lesion of mucous membrane was discovered on careful search. He is disinclined to accept the explanation of sepsis as the origin as offered by Rodman.

Archives of Otology, New Rochelle, N. Y.

April.

52 A Brief Report of Forty Radical Operations for Chronic Purulent Otitis and Complications, with Remarks. Arnold Knapp and C. H. R. Jordan.
53 *A Study of the Pathology of the Internal Ear and the Auditory Nerve. Paul Manasse.
54 The Usual Methods of Treatment and Operation in the Ear and Throat Clinic at Rostock. O. Koerner.
55 *After-Treatment of Radical Operations without Packing. A. von zur Muehlen.
56 An Anatomical Method of Demonstrating the Accessory Cavities of the Nose. G. Bruehl.
57 *The Contagiousness of Acute Otitis Media. L. Wolff.
58 The Occurrence of Rhodan in the Nasal Secretion, and Its Absence in Ozena. Dr. Muck.
59 Entotic Murmur Due to Aneurism of the Occipital Artery. Dr. Muck.
60 *The Masto-squamosal Suture. Dr. Aderman.
61 Acute Mastoiditis Complicated by Scleroderma. M. Kamm.
62 *On the Duplicity of the Accessory Sinuses of the Nose. G. Bruehl.
63 *Are There "Variations in the Course of the Facial Nerve Having Bearing upon the Mastoid Operation?" R. Alex. Randall.

53. **Pathology of the Internal Ear.**—Manasse reports two cases, one of multiple disseminated gray degeneration of the auditory nerve in a tuberculous patient in which the perceiving apparatus of hearing was specially involved. The anatomic changes in the internal ear in no way resembled other tuberculous processes and were very questionably tubercular. In the other case similar disturbance of the perceiving organs of hearing was observed in a syphilitic patient, but the process in the ear was also a specific one.

55. **Packing in Radical Operations.**—Von Zur Muehlen has lately modified the after-treatment of his radical mastoid operations by leaving out the packing after the first or second dressing, and he finds a decided advantage in this. The procedure of packing is often painful and difficult, especially in children, and leaving out the packing in a certain number of cases seems to shorten the length of treatment. The cavities left at the time of operation filled in with newly-formed tissue appear smaller and less deep, and, consequently are easier to oversee and keep clean. The anatomic relations under favorable conditions resemble the normal. He removes only as much of the bone as is necessary to expose the diseased bone, making the cavity as small as possible. The first tampon of iodoform gauze remains as usual for six days, the second one, introduced much more loosely, remains only two or three, eight days being sufficient to fixate the flap. As soon as this is accomplished he leaves off packing. If subsequent packing seems desirable he introduces it as loosely as possible and dispenses with it as soon as he can. The wound is dressed every day and the area irrigated with warm water, and in case of fetid discharge 10 per cent. naphthalin solution is of use.

57. **Otitis Media.**—Wolff has observed the simultaneous occurrence of otitis media in several members of the same family and follows Lermoyez in considering the condition a contagious one.

60. **The Masto-Squamosal Suture.**—From a study of a large number of skulls Aderman finds that the masto-squamosal suture is distinctly more frequent than is held by Kieselbach and Kirchner, who had previously investigated the subject. He examined 2,554 skulls. In 1,413 of unknown age, 219 presented distinct sutures on both sides; in 54 the suture was distinct on one side and a trace on the other; and in 7 it was unilateral. He has not been able to find any particular racial difference as to the frequency of the suture with the exception of the negro skull, in which it seems to be less frequent than in others.

62. **Duplicity of the Accessory Sinuses.**—Bruehl finds that the double cavity is frequently encountered in frontal and sphenoidal sinuses, but rarely in the maxillary antrum. Anatomic investigation shows that in most cases this is due

to the ethmoidal cells which have extended to the frontal bone, the sphenoid bone and the superior maxillary. A true duplication of the accessory sinus due to a division of the rudimentary condition is extremely rare.

63. **The Facial Nerve.**—The danger of encountering the facial nerve in operations on the carious middle-ear has been noticed by various authors, and special stress laid on the variability of the course of the facial canal. Randall has studied this subject and finds that the variance is far less frequent and extensive than has been claimed, and that the descending course of the facial nerve to its stylo-mastoid exit is in all the cases studied almost exactly vertical and crosses the oblique plane of the drumhead some 3 mm. back of the middle of the posterior margin of the annulus. Therefore, in removing the back wall of the meatus we should aim to cut a little below the tympano-mastoid suture if we are to keep in safe territory.

American Journal of Obstetrics, New York.

April.

64 *What Is Eclampsia? Samuel W. Bandler.
65 *Utero-vaginal Tamponade: Its Obstetric Uses. Joseph B. De Lee.
66 *Primary Carcinoma of the Urethra in the Female. J. F. Percy.
67 *Constipation as an Etiological Factor in Eclampsia. John Aspell.
68 *A Plea for "Bloodless" Surgery in Gynecology. O. B. Will.

64. **Eclampsia.**—Bandler emphasizes the importance of internal secretions of the ovary and placenta as a pathologic element in eclampsia. A lack of proper control of the placental secretion by the ovarian, and malsecretion on the part of the placental gland, or preferably, a relative malsecretion due to insufficient or abnormal modification of the placental secretion by the elements furnished by the ovaries, furnishes, he thinks, the most plausible and logical explanation of the lesions of eclampsia.

65. **Utero-Vaginal Tamponade.**—The utility and disadvantages of this procedure are discussed by De Lee, who finds it especially useful in the stoppage of hemorrhage, especially postpartum, after operative procedures; and in cases of cesarean section it may be necessary to tampon the uterus because of atony. He advises the use of a single piece of gauze on account of facilitating removal, and removing it in 16 to 36 hours. It stimulates the uterus to contract, tampons directly the site of the hemorrhage, favors clotting of blood in its meshes, fills up an empty uterus and lifts up and supports the uterus, relieving it of congestion. He is willing to admit that it sometimes has disadvantages, and sometimes women are tamponed that could get along without it. In fact, perhaps this is true of many of his own cases, but what one considers necessary to do in cases of postpartum hemorrhage depends on the standard of obstetrics practiced. The present obstetrical standard is not attempting to save the woman's life, and most of the babies; we must save all the women and the babies that are healthy, and secure them against bad consequences. He has seen the effects of hemorrhage last for months and years, and the loss of over a pint of blood at labor should be prevented. He has found but little use for the measure in placenta previa, excepting where it is necessary to tampon the patient while waiting for help or instruments. It is one of the milder measures to induce labor and is useful in certain cases of abortion. He advises, however, the passing of a thin strip of gauze into the uterus in cases where part of the ovum is expelled and it is impossible to take away the rest, then tampon the vagina tightly with sterile gauze and leave the case until next day. The cervix will then be found soft and easily dilatable, if not fully dilated, and the gauze, with uterine contents, expelled on top of the cotton tampon. As a means of carrying medication to the parturient tract, he considers its usefulness very restricted; indeed, the method is capable of much harm. Constant manipulation of an infected uterus by douches, curettage, medicinal applications, packing, etc., only aggravates things.

66. **Carcinoma of the Urethra.**—Percy reports a case at length and tabulates a number of others from the literature. From his search and correspondence he has come to the conclusion that cancer of the urethra is as rare as he was at first inclined to believe. He also in this paper calls attention to the more important pathologic conditions that may be confounded with primary cancer of this part, such as syphilitic disease, etc. As regards treatment he says he can repeat that the axiom of free and wide incision holds in the treatment of this condition.

67. **Constipation as a Factor in Eclampsia.**—Aspell calls attention to this factor in the causation of eclampsia and reports several cases. All the patients were constipated and had had no exercise in the open air for weeks before the attacks. He is, therefore, inclined to look to the liver as being the source of the toxic influence that produces the convulsions.

68. **Bloodless Surgery in Gynecology.**—Will's article is a plea for massage and manipulation to break up adhesions and reduce displacements, together with the use of pessaries and vaginal tampons to retain them. Other conditions also are amenable to this method. Chronic inflammation, neuralgias, morbid changes in the ovaries, etc., may be favorably affected and subdued by resort to compression, stretching and friction sufficient in degree to produce radical changes in the structure and renewed nervous and vascular activity.

American Gynecology, New York.

March.

69 *A New Method of Suturing the Fascia and Levator Ani Muscle in Perineorrhaphy; Also an Operation for Complete Laceration of the Perineum Designed for the Purpose of Eliminating Danger of Infection from the Rectum. George H. Noble.
70 Pus in the Female Pelvis. John B. Deaver.
71 *A New Method of Treating the Suppurating Abdominal Incision. Wm. Edgar Darnall.
72 The Constituents of the Colloid of an Uterine Fibroma. Torald Sollmann.
73 *The Age of First Menstruation at Pole and Equator. George J. Engelmann.

69.—The second division of this article appeared in THE JOURNAL, Aug. 9, 1902, p. 302.

71. **Suppurating Abdominal Incisions.**—In case an abdominal incision for laparotomy suppurates and requires to be re-opened, Darnall would use hydrogen peroxid and formalin and a solution of the newer silver salts or a weak bichlorid of mercury solution until the profuse discharge of pus can be stopped. Then he closes such a wound by slightly anesthetizing the patient, curetting the sides of the incision to freshen up the granulations, placing in the bottom of the wound a narrow strip of iodoform gauze or a few strands of silkworm gut for drainage, and then laying a strip of zinc oxid adhesive plaster about 6 cm. wide in each side of the incision and about 2 cm. from its margin and passing an interrupted suture between the inner edges of the adhesive plaster across the incision without penetrating the skin. An assistant brings the edges of the incision together over the drain by using pressure from each side of the wound. The sutures are now tied tightly across the incision, closely approximating its sides and union takes place promptly, leaving only a straight line scar when the drain is removed.

73. **The Age of First Menstruation.**—Engelmann has investigated the subject of the appearance of first menstruation and finds it is quite different from the ordinary conception; instead of there being precocious puberty in the tropics and late in the arctic regions, the reverse is often the case. Early puberty is the rule at the arctic region rather than at the equator. The mental factor has much to do with the early development of the function, and he suggests that the carnivorous diet and the habits of the Eskimo may account for their early development, while in the tropics the only possible explanation for the retarded development is perhaps to be found in the torpid nervous system.

American Journal of the Medical Sciences, Philadelphia.

April.

74 *A Contribution to the Anatomy and Surgery of the Temporal Bone. A. E. Schmitt.
75 Gangrenous Cholecystitis, with a Report of a Case in Which a Successful Cholecystectomy Was Done. John H. Gibbon.
76 *Jaundice, with Reports of Interesting Illustrative Cases.—A Contribution to the Toxic Forms of This Condition. James M. Anders.
77 *Abscesses of the Liver Following Typhoid Fever. James G. Sheldon.

78 *A Preliminary Communication Concerning the Nature and Treatment of Recurrent Vomiting in Children. David L. Edsall.
79 *Unilateral Renal Hematuria. Augustus A. Eshner.
80 Bence Jones Albumosuria with Peculiar Nervous Phenomena. T. Napoleon Boston.
81 *On a New Method for the Application of Widal's Test for the Diagnosis of Typhoid Fever. Arthur J. Wolff.
82 *Late Systolic Mitral Murmurs. J. N. Hall.
83 *Concerning the Rôle of Intracellular Catalytic Processes in the Pathogenesis of Malignant Neoplasms. John C. Hemmeter.
84 Rubber Tissue as a Dressing. G. Tucker Smith.

74. **Surgery of the Temporal Bone.**—Schmitt's article is an elaborate description of the temporal bone, its anatomy and the surgical technic of the operations involving it.

76. **Toxic Jaundice.**—Anders reports cases which, while not furnishing a basis for definite conclusions, suggest the following queries and propositions:

1. Is there a true polycholia due to the conversion into bile pigment of the hemoglobin that is suddenly liberated by certain poisons, as ether, chloroform, and the like, or the toxins of the acute infections, as, for example, lobar pneumonia? 2. Doubtless other causative agents are often operative in cases that fall under 1. 3. As there could be no jaundice without the presence of the liver, the term "hematogenous" is misleading, and should be regarded as obsolete; the term "toxemic jaundice" may be, however, appropriately applied to the cases of "hepatogenous" icterus, in which the blood changes are a more or less striking pathological feature. 4. May not the jaundice rarely seen in secondary syphilis be toxic in nature, at times at least, rather than purely "hepatogenous"? 5. Admitting that there are well-established causes for the hepatic cirrhosis, more particularly of the atrophic form, the etiology is but imperfectly understood. 6. Clear evidence to show that the hepatic cirrhoses are, in many cases at least, of microbic origin is accumulating. 7. The intercurrent acute inflammatory conditions with jaundice in the course of cirrhosis of the liver are doubtless micro-organismal in nature. 8. Relapsing febrile jaundice is also to be classified as an infection; it will probably be shown on further investigation to be due to a member of the colon group. 9. It is probable that the jaundice of hepatic cirrhosis is, in a certain sense at least, toxic in nature.

77. **Typhoid Abscess of the Liver.**—Beginning with a case reported in full, Sheldon discusses the subject of hepatic abscess from typhoid, reviewing the literature and ending with a number of similar cases that have been reported. He finds that the symptoms extend over varying periods. The cases that recovered were undoubtedly the result of pylephlebitis. He can not find a record of a case of hepatic abscess of arterial origin that got well. Prognosis in the cases following typhoid is always grave, and death may be expected in all cases associated with suppurative foci elsewhere in the body. The diagnosis is sometimes easy, but may be difficult or impossible. The treatment is always surgical.

78. **Recurrent Vomiting in Children.**—Edsall discusses this condition and concludes that there is a severe acid intoxication at the time of the attack, not during the interval, of the type seen in diabetes mellitus and occasionally in other conditions. The treatment directed to this acid intoxication is by full dosing with alkalies, which has been in his cases strikingly successful, excepting in one in which the results are still in suspense. He has found in the urine of cases acetone and diacetic acid and notes Marfan's experience, who has also found acetone in the urine in the beginning of the attacks. He disagrees with the latter's theory as to its being due to acetonemia, and considers the cases as confirmatory of his own views. He admits that it is possible that some cases may not have been dependent on the same primary disorder, but it will be an easy matter to determine when this intoxication is present and how frequently flooding the organism with alkalies will prove to be an effectual treatment.

79. **Unilateral Renal Hematuria.**—Eshner reports a case of renal calculus with hematuria in which after the kidney was exposed and found apparently healthy and left undisturbed the symptoms permanently disappeared. He has collected from the literature a number of similar cases and concludes that there are occasional occurrences, in men and women alike, mostly at middle adult life, of hemorrhage from a single kidney—from either with equal frequency, in many instances in consequence of demonstrable organic disorder, and in the remainder of obscure and undetermined origin. This hematuria may cease after simple exposure of the kidney or after nephropexy or nephrotomy, or in the failure of these, after nephrectomy. Since the preparation of his paper he has come across the report of an additional case in which slight mobility of the kidney was accompanied with profuse hematuria.

81. **The Widal Reaction.**—Wolff has modified the Wyatt Johnson method; taking a loop from the feces, smearing it on the agar slant in prepared tube and making one or more bouillon cultures from this specimen. The bouillon must react from 1 to 2 per cent. alkaline with the decinormal acid, using phenol phthalein as an indicator. The infected bouillon is incubated at the usual temperature for twelve hours, when an examination can be made. A sample of blood is taken at the same time a specimen of the feces is procured. This is mixed with the bouillon culture as usual and placed on the microscope stage. If there is sufficient agglutinating material present, the typhoid bacilli, if they exist in the cultures, will shortly form clumps in the field. The rest of the field will be observed full of colon bacilli in active motion. If this same reaction occurs with the patient's own blood we can, of course, safely say that the case has advanced at least to the second stage of the disease. Should no reaction take place, another sample of bouillon culture is tested with blood from advanced cases of typhoid, the agglutinating power of which has been tested by the ordinary method of pure typhoid culture. It is necessary for the proper use of this test to keep in stock a number of specimens of blood from well-marked cases, and if kept in a dry place they retain their effectiveness probably indefinitely. With this blood, if the feces contain any typhoid bacilli, a positive and distinct reaction will shortly occur, while the still motile colon bacilli occupy the rest of the field. This indicates that the case is one of typhoid, and that the disease is in the early stage from the middle to the end of the first week. By this method we can make an early diagnosis and also be able to state that the patient has advanced into the second week of the disease, or beyond the seventh day. He has made a number of tests of this method and has in no case had even a doubtful reaction.

82. **Late Systolic Mitral Murmurs.**—Hall concludes from a study of the subject and of typical cases that in a general way we can explain these murmurs by an asynchronous ventricular contraction.

83. **Malignant Neoplasms.**—Hemmeter has studied the pathogenicity of cancer from the standpoint of the chemist and physiologist. He reviews the various hypotheses and points out the difficulties in the way of the parasitic theory. The paper is largely a report of experimental observations and a number of interesting points and suggestions are thrown out. He admits the possible traumatic origin of adenoma and discusses the effect of the ordinary causes on cell division and the influence of physical laws on cell growth. He believes in intracellular catalyzers and the derangement of intracellular catalysis as a factor in producing malignant growths. In conclusion, he suggests that possibly the blood serum contains defensive substances effective in the destruction of cancer cells, and from this deduces the possible hope for a successful form of treatment.

Medicine, Detroit, Mich.

April.

85 *The Sudden Atrophic Influence of Craniospinal Nerves, with Report of Case. F. E. Coulter.
86 Clinical Experiences with Acetozone. Wm. Parsons.
87 Turbinotomy. James M. Brown.
88 Bacteriologic Study of the Blood in 30 Cases of Clinical Typhoid Fever, 2 of Which Proved to Be Paratyphoid and One Doubtful. E. H. Ruediger.
89 The Surgery of the General Practitioner. Raymond C. Turck.
90 *Responsibility in Active Algophily. J. G. Kiernan.

85. **Nervous Alopecia.**—Coulter reports a case in a child 7 years of age who, subsequent to convulsions, lost her hair from the area behind her ears on both sides. The new growth was irregular, lighter in color, finer and softer to the touch than the normal. The areas were nearly symmetrical on both sides, though extending a little more anteriorly on the left. He considers that in certain conditions the cranio-spinal nerves may have a sudden atrophic influence on the skin and its appendages. The nutritive difficulty, he thinks, was transitory as the hair is approaching more the normal condition. He suggests a blood condition, a toxin formed by a very sudden and severe convulsive stage, manifesting itself in this particular

area because of some special histologic character in the nerve trunk as yet undetected.

90. **Algophily.**—The medicolegal relations of this form of sexual perversion are discussed by Kiernan. He thinks that in many of these cases the responsibility is not destroyed.

University of Pennsylvania Medical Bulletin, Philadelphia.
April.

91 *Effects on the Nervous System of Electric Currents of High Potential, Considered Clinically and Medicolegally. Charles K. Mills and Theodore H. Weisenburg.
92 A Case of Intradural Spinal Cyst, with Operation and Recovery. W. G. Spiller, J. H. Musser and Edward Martin.
93 A Case of Spasmodic Torticollis Unsuccessfully Treated by Hypodermic injections of Atropin. Charles S. Potts.
94 *Anno Noki, or Bushi: The Arrow Poison of the Ainus. Edward T. Reichert.
95 *A Consideration of the Facial Reflexes and Nerve and Muscle Phenomena in the Distribution of the Fifth and Seventh Nerves. T. H. Weisenburg.
96 *Experiments in Disinfection with Formaldehyd Gas. Mazyck P. Ravenel and S. H. Gilliland.
97 A Simple Humane Holder for Small Animals Under Experiment. J. Edwin Sweet.
98 Two Cases of Tic Douloureux Treated Hypodermically with Massive Doses of Strychnin. Charles S. Potts.

91. **Accidents from Electric Currents.**—Mills and Weisenburg report a case of apparent bulbar spinal paralysis or myasthenia gravis due to frequently repeated small electrical shocks. There was a late appearing general paralysis of nearly all the musculature, with loss of reflexes. The pathology of the condition is discussed and also the medicolegal bearings of the effects of electric currents of high potential.

94. **Anno Noki or Bushi.**—This substance, the arrow poison of the Ainus of Northern Japan, is described by Reichert, who holds that there is no doubt that it is essentially or solely an inspissated extract of the aconitum frischeri. The experiments which he has made on dogs seem to leave little doubt as to this, as its physiologic action was clearly that of aconite.

95. **Facial Reflexes.**—The reflexes and muscular phenomena in the distribution of the fifth and seventh nerves are reviewed by Weisenburg. The ophthalmic and supraorbital reflex, first mentioned by Overend in 1896 and later by McCarthy, is obtained by striking a light blow with a percussion hammer over the distribution of the supraorbital nerve, the eyes open. A fine fibrillary tremor is first observed in the lower eyelid, and on gradually approaching the tapping to the eyebrows the tremor becomes coarser, the upper lid also being involved and slight approximation produced. This has been found absent in peripheral facial paralysis where the upper branch of the seventh nerve has been involved, and in cases where the Gasserian ganglion has been removed. Weisenburg has found it lacking in superficial facial palsy, but in a large proportion of brain or cord lesions it is normal. The lachrymal reflex may be produced by irritating the nasal mucous membrane, an increased secretion of tears resulting. Care should be taken to avoid a strong light on the eye. This reflex is present in hysterical anesthesia or conjunctivitis, but is diminished where the Gasserian ganglion has been removed. Weisenburg found it diminished in three cases of hemiplegia and hemianesthesia. The cornea mandibular reflex described by von Solder in 1902 is produced by touching the cornea and is shown by a movement of the lower jaw to the side opposite the irritated cornea. The mouth must be partly opened and the lower lid held down for the purpose of observation. The reflex arc is contained in the sensory and motor fibers of the fifth nerve. It is not always present in normal persons, is easily exhausted, but soon restored. Chvostek, in 1876, described the phenomenon named after him, where, as in cases of tetany, by striking over the pes anserinus and in some cases a mere stroking, a spasm of all the muscles of the facial distribution is produced. He thought it was due to a heightening of the mechanical irritability of the facial nerve. It has been found in a variety of conditions, as in hysteria, neurasthenia, epilepsy, tubercular and rachitic conditions, bulbar paralysis, spinal tumors and the late stages of facial paralysis. The malar phenomenon described by Bechterew is the reflex produced by percussion over the malar bone resulting in an upward and backward movement of the corner of the mouth. Weisenburg found this phenomenon not at all constant. The risorius phenomenon is caused by percussion over the angle of the lower jaw, producing retraction of the corner of the mouth backward and slightly downward. The risorius muscle can be distinctly seen contracting. He has observed this in a case of peripheral facial palsy on the affected side, in epilepsy on one side, and in two cases of cerebrospinal syphilis with basal involvement. The last reflex noticed is the depressor labii inferioris phenomenon, caused by percussion over the side of the lower jaw, about an inch and a half back of the symphysis, producing a retraction downward of one side of the lower lip. It is due to irritation of the supramaxillary branch of the lower division of the facial nerve, which supplies the depressor labii inferioris. In some cases, instead of producing a depression of the lip, it produces an upward movement of the same. This is most probably, also, a phase of the Chvostek phenomena.

96. **Formaldehyd.**—Ravenel and Gilliland conclude the report of their experimental study, with the following:

1. Formaldehyd gas well deserves the high place which has been accorded it as a germicide. 2. The employment of special apparatus for generation of the gas, while convenient, is not requisite for its successful application, and no one should be discouraged from using it by the lack of such appliances. 3. The germicidal action of formaldehyd gas is largely controlled by certain factors which are, as yet, imperfectly understood. Other things being equal, the most important of these are moisture and temperature. 4. Each operation must be controlled by the exposure of test cultures distributed in every portion of the room to be disinfected, and no operation is to be regarded as successful until all such cultures are proven to have been destroyed.

Northwestern Lancet, Minneapolis, Minn.
April 15.

99 The Chronic Round, Septic, Perforating Ulcer of the Stomach. Gustav Fütterer.
100 Gastric Ulcer from a Surgical Point of View. James H. Dunn.

Woman's Medical Journal, Toledo, Ohio.
March.

101 Medical Gleanings in Europe and the Far East. Fredericka C. Zeller.
102 Contributions of the New Psychology to Medicine. Mary L. Neff.

Western Medical Review, Lincoln, Neb.
April 15.

103 Diagnosis of Diastolic Heart Sounds. LeRoy Crummer.
104 Syphilitic Affections of the Eye. H. B. Lemere.
105 Syphilis of the Nervous System. F. E. Coulter.
106 Treatment for Relief of Nasal Reflexes, with Report of Cases. F. W. Dean.
107 Diagnosis and Treatment of Chronic Gastritis. Alfred O. Peterson.

Medical Examiner and Practitioner, New York.
April.

108 The Problem of Tuberculosis. S. Elsenstaedt.
109 Chronic Nephritis Unaccompanied by Albuminuria. Arthur R. Elliott.
110 Appendicitis. Robert Abbe.
111 A Résumé of the Most Potent Factors of Disease and Death in the World's History, with a Review of Modern Prophylaxis. (Continued.) W. H. Irvine.
112 Some Phases of Albuminuria. William S. Gordon.

Journal of Cutaneous Diseases, New York.
April.

113 Erythrodermie Pityriasique en Plaques Disseminées. Charles J. White.
114 Myositis Syphilitica. J. A. Fordyce.
115 A New Form of Focus Tube. Charles Warrenne Allen.

Old Dominion Journal, Richmond, Va.
April.

116 Mouth Breathing. Clifton M. Miller.
117 Condylomata Vulvæ. Greer Baughman.
118 The Digestive Disorders of Pregnancy. John W. Scott.
119 Chloroform as a Surgical Anesthetic and Its Administration. F. Manfred Call.
120 The Burial of Ophelia. William H. Taylor.

Proceedings of the Pathological Society of Philadelphia.
April.

121 A New Hemo-alkalimeter. Arthur Dare.
122 Preliminary Report of a Study of the Urine for Tubercle Bacilli in Cases of Tuberculosis (60 Cases). L. F. Flick and Jos. Walsh.
123 Two Examples of Lesions of the Jaw. M. H. Cryer.

Medical and Surgical Monitor, Indianapolis.
April 15.

124 Goiter—Exophthalmic Goiter—Cretinism. John E. Lockridge.
125 The Virtue of Valerian. Samuel E. Earp.
126 Some Elements to Be Considered in Urinalysis. J. W. Crismond.
127 The Importance of Heat, Water, Electricity and Diet in the Treatment of Rheumatism. Alfred S. Jaeger.
128 Neurasthenia. W. H. Williams.

Alabama Medical Journal, Birmingham.

April.

129 Mastoiditis. L. G. Woodson.
130 Puerperal Sepsis, with Report of Cases. J. C. Abernathy.
131 Contract Doctor. M. H. Collins.
132 Adenoids. S. L. Ledbetter.
133 X-Ray Therapy. J. D. Gibson.

Southern California Practitioner, Los Angeles, Cal.

April.

134 Municipal and Personal Hygiene. J. McFadden Gaston.
135 Cystitis in the Female. Charles D. Lockwood.
136 Roentgen Rays in the Diagnosis of Gallstones. Albert Soiland.
137 Some Remarks upon Ethmoidal Disease. Ernest W. Fleming.

Pacific Medical Journal, San Francisco.

April.

138 Chronic Cough of the Aged—Its Rational Treatment. G. A. Gilbert.
139 Appendicitis. Winslow Anderson.
140 The Advantages of the Vaginal Operation in Obese Patients. W. H. Humiston.
141 Specific in Pneumonia. H. B. Stanley.

Medical Bulletin, Philadelphia.

April.

142 Alopecia Circumscripta—Chronic Eczema—Ichthyosis. John V. Shoemaker.
143 The Treatment of Pleurisy with Effusion. George W. Pfromm.

Vermont Medical Monthly, Burlington.

March 25.

144 The Regular Treatment of Pneumonia. W. W. Browne.
145 The Homeopathic Treatment of Pneumonia. Edgar A. Fisher.
146 The Eclectic Treatment of Pneumonia. Pitts Edwin Howes.
147 The Alkaloidal Treatment of Pneumonia. Wm. L. Johnson.
148 A Report of Two Cases of Septicemia, Successfully Treated with H_2O_2 Medicinal. E. J. Melville.

Bulletin of the American Academy of Medicine, Easton, Pa.

April.

149 *May a Hospital Steal? P. Maxwell Foshay.
150 Politics in the Medical Profession. Donly C. Hawley.
151 *Compensation for Medical Services Rendered the State. T. D. Davis.
152 *The Political Side of Medicine. John B. Roberts.
153 *Medical Representation in Hospital Management. Augustus A. Eshner.
154 The Personal Equation in Examinations for Licensure. Charles McIntire.

149.—See abstract in THE JOURNAL, xxxviii, p. 1665.

151.—Ibid.

152.—Ibid.

153.—Ibid.

Mobile Medical and Surgical Journal.

April.

155 Infant Feeding. P. M. Lightfoot.
156 The Early Diagnosis of Smallpox, and Its Importance to the Physician and to the Public Generally. Julius Jones.
157 Ergot: Its Uses and Abuses. G. E. Burney.
158 Surgical Clinics at Mobile City Hospital. W. R. Jackson.
159 Some Further Observations in the Treatment of Typhoid Fever. O. L. Shivers.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

April 18.

1 *Gastric Hyperacidity (Hyperchlorhydria). William Russell.
2 *The Operative Treatment of Enlarged Prostate. William Thomson.
3 *Total Extirpation of the Prostate for Radical Cure of Enlargement of that Organ. P. J. Freyer.
4 On the Operative Treatment of Prostatic Obstruction. F. A. Southam.
5 *Note upon a Possible Relationship between Carcinoma and Nerve or Trophic Areas. G. Lenthal Cheatle.
6 *On the Etiology of Sleeping Sickness. Annibal Bettencourt, Ayres Kopke, Gomes de Resende and Correia Mendes.
7 Note of Some Further Experiments Regarding the Nature and Specific Treatment of Hay Fever. Felix Semon.

1. **Gastric Hyperacidity.**—The comparatively recent recognition of the cause of dyspepsia by excess of hydrochloric acid is Russell's subject. In his method of examination he questions the patient as to each symptom throughout the day, with special reference to the time of meals, intervals of relief, time of recurrence of pain or discomfort, etc. He explains the symptoms by the excess of hydrochloric acid digesting the proteid element and leaving the starchy food unaltered as an irritant, keeping up gastric secretion after the normal period of digestion and beyond what can be utilized. He considers this in part due to a special dyserasia and is willing to admit this among our list of constitutional conditions. The neurotic theory is rejected. He finds this variety common; about 25 per cent. of the dyspeptic cases in the Royal Edinburgh Infirmary came under this category. As regards treatment the correction of constipation may suffice in mild cases. In other cases the use of alkalies taken sometime before food neutralizes any acid residuum facilitating the transformation of the starchy elements, which is in accordance with Pawlow's work on the secretions of the digestive glands. The diet must be regulated by the severity of the symptoms. Proteids ought to be reduced to a physiologic minimum and should be so selected and cooked as to be easy of digestion. The starches should be as much altered as possible, and the quantity of food should not exceed the physiologic requirements.

2. **Enlarged Prostate.**—Thomson favors the suprapubic method, considering the objections as to the danger of extravasation, sepsis and tediousness of recovery as of slight importance. The objections to the perineal route seem to him more weighty; the difficulty in reaching the enlarged organ, the impossibility of making a complete exploration of the bladder, and the danger of missing an encysted or loose calculus. There are cases, however, where operations through the perineum may be advisable, such as cases of extensive adipose development, and in case of small prostate. He calls attention to the predominance of the lateral lobes as obstruction, the fact that the bulk of the prostate is felt in the rectum gives no indication of its intravesical contour and the fact that the size of the prostate has no necessary relation with the severity of the urinary symptoms. While hemorrhage is usually controlled by hot boric solution and does not long continue, it may be advisable to utilize some contrivance to prevent it, and he illustrates a rubber pad, which is introduced through the wound and is attached to a string passed through the urethra by which it can be fitted against the prostatic scar and another string attached to its edge allows of its removal when required. Thomson has no doubt as to the possibility of enucleation in enlarged prostate.

3. **Enlarged Prostate.**—Freyer briefly reports cases and sums up his experience in 31 cases of complete removal within two years in patients varying in age from 58 to 79 years with prostates weighing from 1.5 to 10.25 ounces. A very large proportion of the patients were almost moribund when operated on; scarcely any of them were free from serious complications; 22 of the cases were perfect successes, both immediate and remote, and he means by this complete recovery, the patients being able to retain and pass their urine as well as ever. In no case has there been any relapse, time seems only to consolidate the cures. There were four fatalities, 2 from mania after the operative wound had practically healed and the functions become normal, 1 from heatstroke during convalescence and 1 from coma due to retention of morbid products of the urine in the blood, which had set in before operation. In only one of the four cases could death be attributed to the operation. In all his cases Freyer used the suprapubic method.

5. **Carcinoma.**—Cheatle illustrates cases of rodent ulcer as the most common form of cancer in which secondary deposits in the lymphatic glands are rare and in which the morbid processes are largely confined to certain special nerve areas or branches of the fifth nerve; also cases of squamous epithelioma. He shows that rodent ulcers may be multiple on the two areas of the fifth nerves at the same time; and that they may be multiple on the area of one fifth nerve; and no lesion elsewhere. He notes that cancer belongs to a period of bodily degeneration as a point which is of some importance. He found in one case a degeneration of the posterior ganglion of the spinal nerve supplying the part occupied by the cancer, and this agrees with Lugaro's findings of the effects of peripheral irritation on the effects of the posterior root ganglia. He does not wish to infer that a ganglion degeneration preceded the carcinoma, but can not help alluding to the clinical fact that irritation is a great precursor of cancer, and added to this it causes degeneration in the particular ganglia whose peripheral ramifications

V 19

are irritated. Carcinoma often appears in tissues which are associated with disorders of growth, like moles, and these latter are themselves associated with definite nerve areas in the incidence of cancer. He does not want to be taken as offering a new theory of cancer but merely as attempting to show the grounds for considering the possibility that the genesis and spread of cancer may be connected directly or indirectly with the nerve influences, which preside over the areas affected.

6. **Sleeping Sickness.**—The members of the Portugese commission to investigate the cause of sleeping sickness argue for the identity of the streptococcus described by Castellani with their own previously reported type and point out the common characters. While they claim priority they admit the independence of Castellani's work and its importance as a verification of their own.

The Lancet, London.

April 18.

8 *Infective Endocarditis Mainly in Its Clinical Aspects. T. R. Glynn.
9 *An Analysis of 22 Cases of Sudanese Leprosy. T. J. Tonkin.
10 *Nerve Suture and Nerve Regeneration. Paul B. Henriksen.
11 Three Cases of Ligature of the Common Carotid Artery. W. J. Collins.
12 Narcotile, Bichlorid of Methyl-ethylene: A New General Anesthetic. Tom Eastham.
13 *The Treatment of Epilepsy by Psychical Methods. H. Campbell Thomson.
14 A New Method of Treating Suppurating Catarrh of the Middle Ear. Albert A. Gray.
15 A Case of Acute Trional Poisoning; Remarks. F. P. Wightwick and H. D. Rolleston.
16 Two Cases of Tubal Gestation with Operation: Recovery. Russell Coombe.

8. **Infective Endocarditis.**—Glynn's second lecture discusses the mode of entrance of the pathogenic organisms. He thinks entrance is often through the lungs and air passages or mouth. The aortic and mitral valves were involved in 21 of his cases, the aortic in 10, the mitral in 15, and the endocardium or the ventricles alone in 1. In a number of his cases there were congenital cardiac defects, stenosis of the pulmonary valves, imperfect ventricular septum, etc. The vegetations in the disease are usually of considerable size and infarcts or emboli occur nearly three times as frequently in the infective cases as in the simple cases of endocarditis, though less commonly in the lungs where suppuration or infarcts rarely occur. This does not mean that the emboli causing these were benign. His classification of endocarditis is according to the severity and the duration of the symptoms: acute, subacute and chronic. The character of the temperature offers some indications of the type and the severity, and more frequently pursues an anomalous course in the protracted forms of the disease. In only a very few were there rigors; fever is often fugitive so that the temperature must be taken often.

9. **Leprosy in the Soudan.**—Tonkin gives the results of study of 220 cases of leprosy in the central Soudan. He finds that the macular variety predominates, while the tubercular type is comparatively infrequent. Males appear to be more subject than females. A very large proportion of cases occur at an early age, from 6 to 20 years, which is not in accordance with observations elsewhere. The primary characteristic lesions were more frequent on the face, the outer surface of the extremities, the scapular region and the buttocks. He has never seen the nodules on the palms or soles of the feet, though the outer borders are often the seat of a dense leprous infiltration. He tabulates the duration of the disease in his cases, which ranges from 1 to 55 years. He has little doubt of the possibility of leprosy undergoing a spontaneous cure. He thinks leprosy seldom lasts more than twenty years in any person. If one lives longer, the disease has terminated. In the post-leprous period there appears to be good general health, though there may be evidences of former trouble in the mutilations, etc. The hereditary element is slight and has very little support from his researches. Very few of the cases observed were descended from leprous parents or grandparents. Leprosy is a disease that itself tends to sterility, the average number of children from leprous husbands and healthy wives was less than one and from both parents leprous not more than one and a fraction per couple. Predisposition is not specific. It often occurs in those that have had no leprous ancestors, and he thinks that deficiencies of diet have much to do with it. Wherever leprosy exists we have certain habits as regards clothing, bedding, etc., and a super-carbohydrate diet which leaves a good deal to be desired. In the Soudan the clothing is rarely washed and handed about freely from person to person. The natives show an utter indifference to the disease.

10. **Nerve Regeneration.**—Henriksen's paper is a full study of the disorders affecting the division of the nerves, showing a regeneration in both the peripheral as well as the central sections. When the nerve is divided it loses its motor conductibility after some little time, and he does not think a certain degree of capability is impossible, for sensory conduction may exist during the whole process of regeneration. The further from the periphery the nerve is hurt the longer time it will take before motor power may be affected and the slower the recovery, but this is not evidence that the nerve is growing out from the central end as held by Vanlair and others. Experiments on animals show that the divided nerve unites equally rapidly whether it is sutured or not, but this does not make it inadvisable to suture as circumstances may take place to prevent union and function. Infection of the wound is of fatal significance, leading to the formation of dense scar tissue and there may be dislocation of the ends of the nerves. If union of the nerve has not occurred or if it is incomplete, examination of sensation shows when interference is required. After about three weeks the tissues at the ends of the nerves are transformed into dense scar tissue which is an obstacle to further development. At the same time a corresponding muscle change will take place and no complete recovery may be expected. It is not absolutely necessary, as shown by experiments, that the ends of the nerves should be at first in absolute contact. The time that may elapse before operation is done without the risk of slow and possibly incomplete recovery may scarcely be estimated at more than about one month. New nerve fibers grow most rapidly the first few weeks, and if union does occur it will be rapidly succeeded by recovery of sensation. If sensation does not return, or if it is incomplete or is proceeding slowly at the time scar tissue has been formed, it means that serious obstacles to the union of the nerve are present and that complete restitution of function can not be expected without operation. Still secondary suture may be performed with good results after a long lapse of time. Jessop reports a case where after the lapse of nine years after division of the ulnar nerve above the wrist, there was still complete anesthesia and paralysis. A secondary suture was performed with the result that sensation returned after eight days, motor power after ten weeks and full restitution after nine months. The important thing in either primary or secondary suture is asepsis. In secondary suture it is important that not only all the scar tissue should be removed, but also that the uppermost part of the end of the nerve should be cut off, the nerve fibers being buried in dense connective tissue.

13. **The Psychic Treatment of Epilepsy.**—The effects of psychic conditions on epilepsy are noticed by Thomson and deductions made as regards the use of psychic stimulus. He quotes from J. W. White's well-known article on the supposedly curative effects of operations *per se* and also from the recent work of Boris Sidis on psychopathic researches in mental dissociation as suggesting the value of the psychic treatment. He also reports the case of a patient which he has carefully studied who has been able by will power not only to ward off attacks, but to retain consciousness of events going on during the partially complete attacks. The author firmly insists on the importance of the early diagnosis of epilepsy so as to prevent the growth of the epileptic habit and the loss of inhibitory power.

Bulletin de l'Academie de Medecine, Paris.

17 (No. 12.) *Guaiacolated and Camphorated Oil in Incipient Infection. Matignon and Bernex.—De la valeur thérapeutique des injections sousceutanées d'huile camphrée gaiacolée dans certaines infections au début.
18 *Sur le séparateur des urines de M. Luys et ses applications. Le Dentu.
19 *Sur une blastomycose intra-péritonéale. R. Blanchard.
20 *Present Status of Operation for Ptosis by Substitution of the Superior Rectus. Motais.—Etat actuel de la méthode opératoire du Ptosis par la suppléance du muscle droit supérieur.

21 Hygiène de l'enfance. Committee Report and Discussion.
22 (No. 13.) Le rachitisme considéré comme maladie de dégénérescence. Hérédité du rachitisme. La famille rachitique. V. Galippe and Mayet.
23 *Maladies épidémiques et contagieuses qui ont régné dans les colonies françaises au cours de l'année 1901. Kermorgant.
24 *Discussion sur la maladie de Paget et la syphilis héréditaire tardive.

17. Guaiacolated Camphorated Oil in Incipient Infections.—More than 150 soldiers have been treated by subcutaneous injection of 2 gm. of the mixture described. It proved an excellent measure in the extreme depression accompanying incipient grippe, follicular tonsillitis, bronchitis, etc. The injections display a marked and durable antipyretic action. They are particularly valuable in the army to combat the extreme lassitude observed among the men at certain seasons and among the new recruits. The formula used is guaiacol .1 gm. to .5 gm. camphor and 15 gm. olive oil.

18. Segregation of Urine.—Le Dentu states that Luys' segregator has been used now on 45 men and 55 women, and with perfect success. A small model has also proved successful on a boy and a girl. Lambotte of Brussels suggested, in 1890, the idea of such an instrument for intravesical segregation of the urine, but his device for the purpose was not practical, and Luys, without knowledge of it, invented his instrument which has been previously described in these columns, followed seven months later by Cathelin's segregator. The principle is the dividing of the floor of the bladder into two compartments, and thus differs from the instruments devised by Harris and Downes on Neumann's suggestion.

19. Intraperitoneal Blastomycosis.—Blanchard's patient was a young mechanic, who had noticed a feeling of oppression in the right side of the abdomen for two months, with constipation and painful indigestion, loss of appetite and considerable emaciation. As he lay on his back, the abdomen above the umbilicus protruded and palpation revealed a fluctuating mass, filling the right half of the abdomen, and especially the iliac fossa. McBurney's point was slightly painful. The skin appeared normal, the veins were not swollen. The presumptive diagnosis was tuberculous peritonitis and appendicitis. The peritoneal cavity and iliac fossa contained a large quantity of a whitish yellow, gelatinous substance in which the appendix and cecum were floating. The former was resected and the jelly removed as thoroughly as possible and the cavity drained. The patient rapidly recuperated and is in perfect health, with no signs of recurrence, more than a year since the intervention. The substance removed was not at all of a neoplastic nature, and the organism had no share in its production except by serous exudation. It consisted of an amorphous fundamental substance containing spherical cells and filaments of a blastomyces pathogenic for laboratory animals, but to date it has not reproduced a jelly pseudotumor like the mass from which it is derived. Strange to say, the organism adapts itself without reaction to the presence and proliferation of this parasite, although the resulting mass compresses and modifies the relations between the elements. There is no zone of irritation, no phagocytosis and no giant cells. This absence of irritation seems to indicate that the blastomyces generates a toxin which paralyzes the leucocytes in the vicinity. The fact of the existence of such a toxin is confirmed by the intense fatty degeneration of the liver and the emaciation of the animals inoculated. The patient himself was also much emaciated. The details of culture growth, etc., are reviewed and the complete illustrated description will soon be published in the "Archives de Parasitologie."

20. Motais' Operation for Ptosis.—Since Motais first described, in 1897, his method of treating ptosis by substitution of the superior rectus a large number of ophthalmologists have performed the operation. Some have modified it slightly, but none essentially, and the method can now be considered as firmly established, he states, as the method of operating on strabismus. He shows the physiologic condition and the various points of the intervention in 11 cuts. The movement communicated to the lid by the graft of the superior rectus reproduces exactly the physiologic action of the levator palpebræ. The conditions, therefore, are perfect as regards the esthetic outcome. There is a possibility of two complications, vertical diplopia and ulcer of the cornea. The latter can be avoided and the former is not constant. When it occurred it became gradually attenuated, disappearing completely in fifteen days to five months in all the cases on record. The first step in the operation is to draw the ball down and lid up until the superior cul-de-sac is completely smoothed out and forms a flat surface. The conjunctiva is then incised horizontally about 5 to 6 mm. from the cornea, for a distance of 12 to 15 mm. From the center of this horizontal incision a perpendicular incision is carried upward to the edge of the tarsus. The tendinous expansion of the superior rectus is then exposed through the opening thus made and it is lifted up with a large hook. A buttonhole is cut in the tendon 3 mm. from its insertion in the sclerotic coat, and from this buttonhole two parallel incisions are made for 10 mm. lengthwise of the tendon, thus cutting out of its center a long narrow flap, while not disturbing its attachment to the eyeball. The tip of this flap is held in broad forceps to spread it to its fullest width and a thread is passed through it in a U stitch. The outer surface of the tarsus is then detached from surrounding tissues and the flap is drawn into the recess thus made, the needles on each end of the thread emerging on the outer or inner aspect of the lid as desired. The ends of the thread are tied over a roll of cotton or gauze. The flap is drawn nearer to the edge of the eyelid according as the ptosis is more pronounced. In the 32 operations by this method that have been published, ulcer of the cornea was observed in 5, but this could be attributed in every instance to irritation from the catgut knot of the suture or to direct irritation from the dressing. Motais now uses very soft silk, and has had no irritation in 10 cases in which he has tied the knot of the thread on the inner side of the lid.

23. Epidemics, etc., in the French Colonies.—We note, among the items in this official report, that an epidemic of bubonic plague among the natives in the northern part of New Caledonia abruptly ceased after four days of violent rains, "which completely swept the ground." The report states that leprosy is increasing at an alarming rate. During the last twenty-five years entire tribes on this and adjoining islands have been annihilated by it. French Guiana, New Caledonia and points in Oceania are particularly dangerous on this account for Europeans. New cases of leprosy are frequently encountered among French officials returning from these colonies, unconscious that they have been infected. The incessant arrival of these new cases of leprosy is a menace to Paris and the country at large. In New Caledonia a fifth of all deaths is due to tuberculosis. The report comments on the lack of resistance to tuberculosis of the natives of Oceania, notwithstanding their stature and athletic forms. Young men built like a Hercules succumb in a few months to phthisis.

24. Paget's Disease and Tardy Hereditary Syphilis.—Fournier replies to Lannelongue's communication asserting the heredosyphilitic nature of Paget's disease. His experience has not been conclusive, but he is inclined to consider it a parasyphilitic affection, like tabes, general paralysis, pigmented syphilid of the neck, leucoplasia and tabic exostosis, which, although largely dependent on syphilis, are yet not influenced by antisypilitic medication. He also discusses the question whether a heredosyphilitic should be informed of his condition, and takes a decided affirmative stand. If young, the parents must be warned, in order that the child may have suitable treatment and that the specific nature of possible lesions may be recognized in time. If the subjects are of riper years, he informs them that they have syphilis, but does not consider it his business to tell them whence they derived it. The source is a secondary matter. The main point for the physician is that the subject has syphilis and must be on his or her guard against its manifestations. The question of marriage for heredosyphilitics imposes the necessity that they should know their condition. He describes several cases to illustrate this point. Robin continued the discussion, reporting some

research on the composition of the bones in syphilitics and in Paget's disease. A syphilitic tibia contains more water and more nitrogenized substances than the Paget tibia, with less fats, while the mineral elements are about the same. The fatty matters in the syphilitic tibias averaged .176, while the Paget tibia showed 13.19, and the other sound tibia of the same subject showed 11.2.

Presse Medicale, Paris.

25 (No. 21.) Campaign Against Tuberculosis. M. Letulle.—La lutte contre la tuberculose et l'anarchie médicale.
26 L'extirpation de l'esophage thoracique. J. L. Faure.
27 (No. 22.) Valeur clinique de l'examen cytoscopique des urines. L. Bernard.
28 L'arrhénal dans le traitement des Fièvres palustres à Tananarive. M. Fontoynont.
29 (No. 23.) Anglochoilte chronique et insuffisance hépatique avec symptomes d'acromégaile. Klippel and Vigouroux. One case.
30 L'alcool. H. Labbé.
31 Treatment of First Permanent Molar. G. Mahé.—Conduite à tenir a l'égard de la dent de 6 ans.
32 (No. 24.) Les injections mercurielles intra musculaires dans la syphilis. F. Tremolières.
33 Bactériologie et histologie urinaires. Technique microscopique et clinique. G. Borne and P. Vadam.
34 *Anesthesia of Inflamed Tissues with a Mixture of Cocain and Adrenalin. E. Foisy.—Nouveau procédé d'anesthésie des tissus enflammés.
35 Mutual Benefit Societies and the Campaign Against Tuberculosis. A. Calmette.—Les sociétés de secours mutuels et la lutte contre la tuberculose.
36 (No. 26.) *Cryoscopy of Milk. E. Parmentier.—La cryoscopie du lait.
37 A propos de la phlébalgie. E. Censier.
38 Rhinoplastic Restoration of Sub-Septum of Nose. A. Raoult. —Nouveau procédé de rhinaplastie partielle pour la restauration de la sous-cloison nasale.
39 (No. 27.) *La tuberculose. Maladie sociale. L. Landouzy.
40 *Adrenalin in Treatment of Cancer. G. Mahu.—L'adrénaline. Remède du cancer.
41 Improved Keratin Coating for Pills. H. Dumont.—La médication keratinisée.

34. Cocain-Adrenalin Anesthesia of Inflamed Tissues.—Foisy proclaims that this method of local anesthesia is far superior to all others, as it suppresses both pain and hemorrhage. He has removed with it large carbuncles on the neck and suppurated ganglia in the inguinal region and operated on anal fistulas without pain. He uses a mixture of 20 to 25 c.c. of a 1/200 solution of cocain, with 13 to 15 drops of a 1/1000 solution of adrenalin. In case a smaller amount of a more concentrated solution is preferable, his formula is 1 c.c. of a 1 per cent. solution of cocain with 4 or 5 drops of a 1/1000 solution of adrenalin. The patient reclines and the injection is made along the line of the proposed incision. The needle is then introduced deeper into the tissues, using three or four syringefuls in all of the first mixture. The first prick of the needle is all that the subject perceives. Anesthesia is complete in two or three minutes, but exaggerated pressure or traction on the tissues should be avoided, and the incision must be made through each layer separately. Every vessel oozing even very slightly must be ligated to prevent secondary hemorrhage as the effect of the adrenalin wears off.

36. Cryoscopy of Milk.—Parmentier's first communication on the importance and value of cryoscopy as a means of detecting the watering of milk was reviewed in these columns, p. 1032. He gives his experiences in this article and portrays the benefit derived from this simple method of controlling the purity of the milk. In one case two children were suddenly affected with a gastrointestinal trouble traced to the milk, which had a freezing point of .64 C., showing the addition of some foreign substance, found to be an irritating alkali used to clean the cans. In another case an infant was several times affected with enteritis, and the freezing point of the milk was .48 C., which indicated 12.72 per cent. of water. By this means he detected that the milk in certain hospitals was being watered in a proportion of 7, 12, 25 and even 34 per cent., but since the dealers know that the cryoscopy test is being applied the milk has been pure. There is no doubt that many small epidemics among children are caused by impure water being used to adulterate the milk. Some of the crèches were found to be distributing milk containing 12 per cent. water. This may explain many cases of gastroenteritis among infants, and possibly is responsible for the high infantile mortality, especially in summer. He found that the higher-priced milk was as liable to be watered as that sold at ordinary rates. The dealers aim to produce a milk so rich that it supports all the usual tests while still containing a large proportion of water, which hitherto has escaped ready detection. The normal freezing point of normal milk is minus .55 or .56 C. When it is .53 it indicates a proportion of water of 3.63 per cent.; .52 indicates 5.45 per cent.; .51 indicates 7.27; .50 indicates 9.09; .49 indicates 10.90; .48 indicates 12.72; .44 indicates 20 per cent.; .40 indicates 27.27 per cent., and .36 indicates 34.54 per cent. The formula for the calculation is that the water added is equal to the amount of milk multiplied by the quotient of the normal freezing point minus the freezing point observed, divided by the normal freezing point. If the freezing point is above .57 C. foreign substances must have been added, generally sodium borate or bicarbonate.

39. Tuberculosis from the Social Point of View.—In this address Landouzy arraigns the armed peace of Europe as one of the most prolific sources of the spread of tuberculosis. He states that during the last eight years alone France has lost 36,000 young soldiers on account of tuberculosis, either by death or dismissal from the service. They may have brought the germs of disease with them into the army, but under more favorable conditions the germs might not have developed. He urges the instruction of girls in the prophylaxis of disease and in hygiene, remarking "that every time a woman is trained a little school is founded." Young mothers thus instructed will guard their babes from intercourse with coughers and from their kisses. They will bring the sun into their homes and abolish dust and dry sweeping. Alcohol makes the bed for tuberculosis. Lancereaux found 1,229 alcoholics among 2,000 consumptives. In the manufacturing centers in the department of the Rhone and of the Seine, tuberculosis claims 255 out of every 1,000 deaths. The proportion of deaths from tuberculosis is 50 per 10,000 inhabitants in the crowded portions of Paris, while it is only 20 in the wealthier parts of the city, as in the Madeleine, and 11 in the Champs Elysées, where the very rich reside. In conclusion, he urges that all the various anti-tuberculosis and anti-alcohol societies, leagues, etc., should be co-ordinated into one grand federation to include every organization working for sanitary and social improvement. Such a combination for the purpose of stamping out tuberculosis, the social evil of our epoch, would be the most exalted expression of the ideas of mutual co-operation and fellowship which ought to govern modern society.

40. Adrenalin for Cancer.—Mahu has found that it is possible to arrest the pain and hemorrhage and thus improve the general health, by merely swabbing the ulcerated surface of a cancer with a 1 per 1,000 solution of adrenalin. He describes 3 cases thus treated. It is, of course, only a palliative measure, but in every instance the benefit derived was most remarkable. The neoplasms partially retrogressed and then remained stationary, free from pain or hemorrhage, the patients apparently in robust health. On 4 others the results were nearly as good. The cancers were in the mouth, throat, breast, rectum, or on the face.

Semaine Medicale, Paris.

42 (XXIII, 13.) The Unconsciously Deaf. E. Félix.—Les sourds inconscients.
43 Letter from America (Chicago). La fièvre typhoïde aux Etats Unis. F. Münch.
44 (No. 14.) *Valeur pratique de la suture arterielle. F. Lejars.
45 Letter from America (Chicago). La radiothérapie à Chicago. F. Münch.

44. Suture of Arteries.—Lejars has found in the literature 23 cases in which an artery was sutured lengthwise, and 4 in which a circular suture was made. The axillary was sutured in 7, the femoral in 6, the popliteal in 3, the common iliac, external iliac, common carotid and internal carotid in 1 each. In a certain number the results were perfect, both immediate and afterward. Even in 7 cases in which the sutures passed through into the lumen, there was no thrombosis or obliteration. This was especially noticeable in experiments on animals, even when a piece of catgut traversed the lumen. Thrombosis is directly connected with infection; when the surroundings were aseptic success was almost invariable. When there is

infection, intervention of this nature is always risky. There are very few arteries at present which it is dangerous to ligate, but lateral suture is to be preferred in case of a small wound on a large artery in aseptic conditions. Under other conditions the results to date have not sustained the hopes raised by the first successful cases reported.

Deutsche Med. Wochenschrift, Berlin and Leipsic.

46 (XXIX, 14.) *Phlorizin- Diabetes und chemische Eigenart (chemical individuality). F. Kraus.
47 Beiträge zur Morphologie der pathogenen Bakterien. Cholera-Bacillus und Vibrio Metschnikoff. E. Saul.
48 Cerebellar Abscess with Sudden Paralysis of Respiration Center. H. Fileas.—Kleinhirn-Abscess mit plötzlicher Lähmung des Respirationscentrum.
49 Peculiar Cutaneous Syphilid. P. Thimm.—Ein eigenartiges hemorrhagische Syphilid der Haut.
50 *Action of Bismuth. G. Fuchs.—Zur Theorie der Bismuthwirkung.
51 *Clinical Importance of Infusoria in Digestive Tract. P. Cohnheim.—Ueber Infusorien im Magen und im Darmkanal des Menschen und ihre klinische Bedeutung. (Commenced in No. 12.)
52 New Double Stethoscope. Heermann (Posen).—Ein neues Doppel-Hörröhre.
53 *Das Path.-Anat. Institut in Rom und das Werk über Malaria von Prof. Marchiafava und Bignami. G. Galli.
54 *Bericht über die Untersuchungen an den Dauergehern beim Distanzmarsch, etc. A. Albu and W. Caspari.

46. Chemical Individuality of the Species.—The glycosuria induced by phloridzin affords a base for the study of the chemical individuality of the species much better than inanition. Kraus has been conducting such research on several dozen white mice, and describes the details and results. They seem to indicate, among other points, that there are probably atom-complexes especially favorable for the formation of sugar out of albumin in case of phloridzin diabetes. Also that leucin in some way forms a chemical bridge between the carbohydrate and protein bodies. He remarks, in conclusion, that this research demonstrates the incorrectness of rating as equal to each other the various albuminoid substances in the body.

50. Action of Bismuth.—Fuchs has been studying the action of bismuth in cases of gastric ulcer, and has established that it is not merely a mechanical protection for the diseased part but has also a specific influence. It is decomposed by the action of the mucus into a bismuth oxydul, which penetrates into the granulation tissue and protects it. Magnesia usta and other chemicals are not able to substitute it, as they lack the specific properties of the bismuth and its derivatives. Bismutose seems to possess these properties in a marked degree and is proving its efficacy in the clinic.

51. Clinical Importance of Infusoria in Digestive Tract.—Cohnheim did not discover infusoria in the majority of his cases of chronic gastroenteritis, but he found them in a certain number and also in healthy persons. After careful study of the subject, he proclaims that they are harmless and are not responsible for the clinical manifestations observed. They live and flourish in pathological conditions and are thus important from a diagnostic point of view. When infusoria are discovered in the esophagus and stomach they can be regarded as an extremely probable indication of the presence of an ulcerating carcinoma in one of these organs, still free from any signs of stenosis of the pylorus. Infusoria may be encountered as the first and an almost positive sign of carcinoma of the stomach. Live intusoria in the feces are a symptom of a primary, chronic gastric affection, a gastritis, generally atrophicans, except in cases in which they afford a further sign of a severe entercolitis. Encysted infusoria are found sometimes in healthy persons, but there is always a history of a preceding gastritis or gastroenteritis. The infusoria, the flagellates and ciliated forms, have no pathogenic, but merely a symptomatic-diagnostic importance and, consequently, attempts to destroy the infusoria by drugs or otherwise are not only useless but directly harmful, as they aggravate the underlying affection.

53. Marachiafava and Bignami's Work on Malaria.—These professors of pathologic and general anatomy at Rome accept three parasites in malarial infection, the tertian, quartan and estivo-autumnal, and also three modes of infection, inoculation by mosquitoes, by artificial inoculation and by inoculation through the maternal placenta. They do not admit the possibility of infection through air or water. Bignami was the first to inoculate a human being with malaria by means of mosquitoes, his first attempt dating from Nov. 1, 1898, when he artificially induced malarial infection by this means in a patient who had never had malaria and had been in the hospital for six years on account of a nervous affection. Both M. and B. accept an average duration of thirteen days for the incubation of quartan fever, of ten days for tertian, and of three days for estivo-autumnal. They ascribe but a secondary importance to the telluric, atmospheric and physical conditions. They have found that in the comatose and choleraic forms of pernicious malaria the parasites are found in enormous quantities in the brain and intestines respectively; sometimes every blood corpuscle contains one. They have noted that malarial patients are especially susceptible to pneumonia, and it assumes a protracted and severe form as resolution is tardy and incomplete. The lung involved develops sclerosis by neoformation of connective tissue; it is accompanied by endocarditis and meningitis, a triad to which Marchiafava was the first to call attention and is, therefore, called by his name. They never noticed an antagonism between malarial infection and tuberculosis, but, rather, the contrary. In case diagnosis is urgent, they advise puncture of the spleen to obtain blood. The prognosis should be reserved in the estivo-autumnal malarial infection, but in the other varieties it is favorable, although the duration, the individual and the locality must be taken into account.

54. Observations on Competitors in Distance Walking Match.—Albu and Caspari examined the three "favorites" in the international walking match between Dresden and Berlin last May. The distance was 202 kilometers, about 126 miles, and was covered in twenty-seven hours less two minutes by one, in two hours longer by the second, and in nearly two hours more by the third. All were 20 and 27 years old. They each exhibited symptoms at the close of the match resembling those of collapse, but the heart rapidly recuperated, and after several hours had entirely regained its previously determined physiologic condition, as also the kidneys and other organs. Albu is convinced that such strains on the heart and liver must have a predisposing tendency to disease later, and urges physicians to insist on avoidance of such excesses and to inquire for them in cases of heart and kidney disease. True sport should induce physiologic action alone, not pathologic.

Monatshefte f. Prakt. Dermatologie, Hamburg.

Last indexed page 43.

55 (XXXV, 12.) Histology of Elastic Cartilage. Rasch.—Zur Histologie des elastischen Knorpels.
56 New Staining Method for Collagen. A. Marullo.—Eine Färbungamethode für Kollagen.
57 (XXVI, 1.) Staining of Spongioplasm and "Foam Cells." P. G. Unna.—Die Färbung des Spongioplasmas und der Schaumzellen.
58 Vaccinal Affection of Female Genitals. G. Löwenbach and A. Brandweiner.—Die Vaccineerkrankung des weiblichen Genitales.
59 *Application of Constant Heat to Skin and Organs. K. Ullmann.—Ueber Wirkungen konstanter Wärme auf die Haut und andere Organe mit Demonstration des Hydrothermoregulators und verschiedener Thermokörper.
60 Modification of Unna's "Zinc Glue" Dressings. Rasch and Sack.—Noch einmal die Zink-Leim Puderdecke. (Commenced in No. 12.)
61 (No. 2.) Differentiation between Hyalin and Bacteria Envelopes in Rhinoscleroma. P. G. Unna.—Zur Differentialdiagnose zwischen Hyalin und Bacillen-Hüllen im Rhinosklerom-Gewebe.
62 *Die Elektrisierung der Prostata und die neueren Instrumente Elektropsychrophor für Rectum und Urethra). M. Porosz (Budapest). Ten cuts.
63 Fall von positivem Gonokokkenbefund in einem epididymitischen Abscess. A. v. Karwowski. Eighth case on record.
64 (No. 3.) Ueber eine Epidemie von Trichophytie des Kopfes bei Schulkindern (of head among school children). Werther.
65 Ueber Heimitol, ein neues Harn- (urine) Desinfizions. E. Heuss.
66 Ueber generalisierte Xanthome, besonders das Xanthom "en tumeurs." Richter. (Commenced in No. 2.)
67 (No. 4.) Ueber chron. streptogene Haut- (skin) Affektion sub forma einer bullösen Dermatitis (eines Pemphigus). F. Krzysztalowicz.
68 *Einige Bemerkungen zur Behandlung der Furunculosis. M. Cohn.
69 In eigener Sache. A. Pappenheim. Criticism of Maximow's work on inflammatory neoformation.
70 (No. 5.) 2 Fälle von Chylurie infolge von Filariosis. Remliniger and M. Hodara. (Constantinople.)
71 *Ueber das Wesen (essence) der sexuellen Neurasthenie. M. Porosz.

72 Zur Lehre von den Syphilis-Bacillen. J. Paulsen.
73 Ibid. M. Joseph. (Commenced in No. 3.)
74 (No. 6.) Adipositas dolorosa und schmerzende symmetrische Lipome. P. Thimm.
75 Gonorrheal Affection of Paraurethral Passages. J. Sellei.—Ueber die gonorrhoische Erkrankung der Paraurethralgänge.
76 Staining Gonococci. F. Kruysmalowicz. Eine Notiz über die Anwendung der Pappenheim-Unna'schen Protoplasma-Färbung bei der Färbung der Gonokokken.
77 Ibid. Unna.

59. **Application of Heat in Therapeutics.**—Ullmann's apparatus was described in THE JOURNAL of July 26, 1902, p. 225. The local sweating is merely an accessory factor in the cure. The chief benefit is from the bactericidal effect of the high moist temperature, the promotion of absorption and the histoplastic and sedative action of the heat. The bactericidal effect is most marked in the abortive treatment of venereal ulcers and other necrotic ulcerative bacteriogenic processes in the derma. It is accompanied by absorption in the abortive treatment of acute gonorrheal rheumatism, also in prostatitis, gonorrheal periurethritis, follicular abscesses, epididymitis, gonorrheal funiculitis and inflamed or ulcerating buboes, infectious granulomata, sycosis, actinomycosis, etc. It is especially valuable for the promotion of absorption of old inflammatory infiltrates or acne and in the "borderland" affections, remains of exudates in joints after rheumatism and gout, periostoses, ostitis, inflamed varices, hemorrhages after dislocations or other trauma, and to promote the healing of suppurating wounds by checking the profuse leucocytosis. Its histoplastic action is especially marked in atony and torpid granulation, tendency to serpiginous growth and destruction of tissue. It soothes the pain in inflammatory and neuralgiform conditions of all kinds, even including the cases of tissue alienation in the nerves themselves. The only contraindications seem to be a tendency to hemorrhages and tuberculosis or acute infectious diseases. Application of constant heat by this method has been eminently successful in the domains of laryngology, ophthalmology and gynecology, and is being used extensively in veterinary practice to supplant blistering, and in laboratory experiments. By gradually raising the temperature to 39 or even 48 C., and keeping it at this point for two to five hours, the local active hyperemia, edema, hemorrhages and necrosis induced at first gradually retrogressed to complete restitution, with the exception of the necrosis. Rabbit skin is much more tolerant to high temperatures than human skin. The loosening up of the tissue by this moist heat and the changed and increased metabolism in the parts, with its unquestionable powerful influence on the nerves, are important factors in the benefits of this form of thermotherapy.

62. **Electric Treatment of Prostate, Urethra and Rectum.**—See Porosz' other article below.

68. **Treatment of Furunculosis.**—Cohn suffered from a remarkably severe case of furunculosis himself, and perseveringly applied all the ordinary remedies without avail. Even yeast and a four weeks' course at the strongest sulphur baths in Europe (Nenndorf) proved ineffectual. He attributed the primary infection to a flea bite, either from germs transmitted by the insect or introduced in scratching. The following method of treatment finally proved effectual on himself and has since been regularly employed in his practice, with results far surpassing those obtained by the other methods in vogue. As soon as the incipient pimple or furuncle shows itself he anoints it with a little ichthargan salve, from the size of a pinhead to that of a bean, rubbing it first into the vicinity and then over the lesion itself two or three times a day. All internal medication is avoided except that the bowels should be regulated and, possibly, sulphur waters or arsenic be taken. The formula for the salve is 10 gm. ichthargan, 5 gm. aq. dest., 10 gm. glycerin, 35 gm. lanolin, and 40 gm. vaselin. When the inflammation has subsided, a 1 per cent. ichthyol paste can be substituted. Furuncles on or near the genitalia require caution, as the ichthargan is not able to display its full power and the ordinary measures may be preferable. Cohn warns against the use of the knife except in case of a large carbuncle. It is then too late for ichthargan treatment, and he uses a platinum cautery and applies a salicylated soap plaster and zinc plaster covering. As an adjuvant he recommends a daily bath with 60 gm. ichthyol in the water or sulphur baths. If the expense is prohibitory he advises Arning's creolin baths. A course at Nenndorf, continued, if necessary, for six weeks, may possibly be useful.

71. **Essence of Sexual Neurasthenia.**—Porosz presents in detail the arguments which have convinced him that the true cause of sexual neurasthenia is exhaustion, atony, of the prostate. The imperfectly developed prostate of puberty becomes exhausted sooner than the better developed. The exhaustion is due to abuses in venere, and the characteristic symptoms of sexual neurasthenia are always associated with certain objectively evident changes in the prostate. The loss of energy noted in the prostate may be due to one of five causes, each of nearly equal pathologic importance, gonorrhea, masturbation, abuses in coitu, coitus interruptus and abstinence. He explains that the alternation of abusus in coitu and months of abstinence is particularly harmful. Nature knows no such abrupt transitions. By raising the tone of the prostate it is possible to restore it to normal conditions and thus cure the sexual neurasthenia, as he has accomplished in 4 cases, chiefly by means of Faradization of the prostate.

74. **Adipositas Dolorosa and Painful Symmetric Lipomata.**—Thimm is convinced of the identity of these two affections. He describes a case of multiple symmetrical and painful lipomata and points out the close resemblance to adiposita dolorosa. He also cites published cases in which the two affections coincided.

Wiener Klin. Rundschau, Vienna.

Last indexed page 1111.

78 (XXVII, 3.) Urologic Notes. J. Preindlsberger.—Urologische Mitteilungen.
79 *Cancer Research. L. Seeligmann.—Mitteilungen über Studien zur Erforschung und Heilung des Krebses beim Menschen.
80 (No. 4.) Ligation of Carotid. M. Sättler.—Zur Kasuistik der Unterbindung der Arteria carotis externa.
81 *Gastro-Spleen Reflex. J. Hnatek.—Ueber den sogen. Gastrolienal-Reflex.
82 (No. 5.) Zur Kasuistik der congenitalen Syndactilie. M. Kullscher and D. Epstein.
83 Tardy Pneumonia with Gangrene After Elbow Injury. Helmann.—Traumatische Spätpneumonie mit dem Ausgange in Gangrän nach Ellenbogenverletzung. (Commenced in No. 4.)
84 (No. 6.) *Beiträge zur Pathologie der Prostata. E. Remete.
85 Postpartum Equipment for Midwives. A. Hink.—Eine Hebammenausrüstung für das Wochenbett.
86 (No. 7.) Surgical Treatment of Chronic Maxillary Sinusitis. L. Harmer.—Ueber die chir. Behandlung der chronischen Kieferhöhlenleiterung.
87 *Improved Roentgen Technic. Wiesner.—Eine Blende zu Roentgenaufnahme.
88 Midwives' Equipment. W. Hahn.—Zur Hebammenausrüstung.
89 Face Presentations. A. Ostrcil.—Ueber Gesichtslagen.
90 (No. 9.) Origin of Blood-Plates. E. Schwalbe.—Haben die Blutplättchen eine einheitliche Genese?
91 Origin of Drumstick Finger in Heart Affections. E. v. Czyhlarz.—Beitrag zur Lehre von der Entstehung der Trommelschlägelfinger bei Herzaffektionen.
92 Hypertrophy of Tongue. Ibid.—Fall von Hypertrophie der Zunge bei Osteohypertrophie pneumique.
93 (No. 10.) *Treatment of External Anthrax. E. Graef.—Zur Behandlung des äusseren Milzbrandes.

79. **Carcinoma Treated by Carcinoma Extract.**—Seeligmann's researches were based on the assumption that the tendency to carcinoma is a constitutional affection, whether from infection or other cause is immaterial. The consequence of this constitutional tendency is intense proliferation of the epithelial cells in the same way as the thyroid gland proliferates under certain conditions. The proliferating epithelial cells may produce some internal secretion which may prove to be the antitoxin of the primary constitutional affection. If this antitoxin could be supplied to the organism in sufficient measure, it might be able to arrest the morbid growth, as thyroid treatment influences the morbid thyroid gland. The natural production alone is not adequate. Proceeding on this assumption, he first administered sterilized and desiccated cancer substance to numerous rabbits, guinea-pigs and mice and established its absolute harmlessness. He then gave it to a number of patients with inoperable carcinoma. The objective and subjective symptoms were much improved, the general health much benefited. The postmortem findings in one case showed that there had been no metastasis of the primary tumor. The patients were all in such advanced stages that no better results could have been anticipated.

They confirm those published by Bra, Marchand, von Leyden Blumenthal and others, with organ and serum treatment of cancer.

81. **Stomach-Spleen Reflex.**—Hnatek reports comprehensive experimental study of the phenomenon that the spleen increases in size on chemical, thermic or mechanical irritation of the stomach. He found that the phenomenon occurred after the vagus was severed and that it is a reflex by way of the sympathetic. He also established that it was not due to congestion in the veins of the spleen.

84. **Pathology of the Prostate.**—Remete publishes an account of 2 cases of atrophy of the side of the prostate corresponding to resection of the testicle, twenty-two and nine years before, for trauma or sarcoma of the penis. He proclaims that we can expect atrophy after castration only when the prostate is comparatively normal. After it is once pathologic or degenerated it is no longer capable of a process of involution and, consequently, castration is powerless to effect it.

87. **Improved Roentgen Technic.**—Wiesner makes the exposures through a round hole in the center of a lead-coated board. A metal cylinder is fastened in the hole in the center and can be raised or lowered by a screw. The board is also adjustable on a standard which also carries the vacuum tube above. As the subject reclines, the board is lowered to fit over the part to be radiographed and the metal cylinder is pressed down into the skin, and the radiograph taken through it. By this means only the parallel rays are admitted and no radiation occurs. The pictures are much clearer than those otherwise obtained. It is possible to obtain in this way the most instructive radiograms of the sacrum and spine, even in corpulent persons, in two minutes. The contrivance is illustrated.

93. **Treatment of External Anthrax.**—Graef states that in 62 out of 75 cases of serious external anthrax he was able to transform the threatening lesion into an innocent scab in less than twenty-four hours. Ten of the remainder finally recovered, and 3 died. This percentage of deaths is small in comparison to the statistics published by others, and he attributes his success to his method of treatment. This consists in cauterizing the lesion with caustic potash. He first cuts out the necrotic plug in the center, but carefully refrains from excising into sound tissue, and then uses the caustic pencil.

Riforma Medica, Palermo.

Last indexed page 945.

94 (XIX, 1.) Percussion of Heart from Rear. L. Ferranini and G. Arnone.—L'ottusita posteriore del cuore in condizioni normali e patologiche.

95 *L'uso del cacodilato di sodio in alcune dermatosi. G. Pabis.

96 Sull' isterotomie vaginale. B. Nigrisoli.

97 Sepsis of Air Passages in Early Infancy. E. Mensi.—Sulla sepsi dell apparato respiratorio nella prima infanzia.

98 (No. 5.) Contributo alla patogenesi della tetania gastrica. L. D'Amato.

99 Le indicazioni degli interventi chirurgici nelle malattie degli intestini. R. T. Giovanni.

100 *Sulle ippuropatie (lesioni della cauda equina) e sull' innervazio radicolare. S. Pansini. (Commenced in No. 1.)

101 *New Method of Hysteropexy. G. Foschini.—Nuovo processo di isteropessia a cura delle retrodeviazioni e del prolassi. G. Foschini.

95. **Sodium Cacodylate in Dermatoses.**—Pabis found this drug effective in improving the general nutrition in cases of eczema, ichthyosis, prurigo and lupus and thus indirectly benefiting the dermatosis.

98. **Gastric Tetany.**—D'Amato reports a case of acute and fatal gastric tetany occurring in a robust man of 32, who for five years had suffered from gastrectasia, the results of stenosis of the pylorus, with hyperchlorhydria. Guinea-pigs were injected with a filtrate of the stomach contents after a test meal, obtained by the stomach pump during the last days of life, as lavage was resorted to as a palliative measure. The 21 animals all died with symptoms closely resembling those of the tetany observed in the patient. The query then arose as to whether the convulsions observed were due to some special toxin in the tetanic stomach or merely to the hyperchlorhydria. Further experiments were made with other animals injected with the filtrate of the stomach contents from a patient with pronounced Reichmann's disease, but no pathologic results were noted in these animals, not the slightest tendency to tetany. He concludes, therefore, that the convulsive toxin found in the stomach of the patient with tetany was a specific, transient toxicity connected with the tetany. The other organs at the autopsy showed also evidences of the action of some toxin.

100. **Lesions of the Cauda Equina and the Radicular Innervation.**—Pansini concludes his extensive monograph on this subject with the statement that everything points to the fact that the terminal peripheral nerve distribution corresponds to the metameres. The plexuses and the peripheral nerves all follow the distribution of the roots, but superposed and intertwined to ensure the multiplicity of innervation of every point at the periphery.

101. **Foschini's Method of Hysteropexy.**—The round ligament is drawn up through a buttonhole on each side, about 3 cm. outside of the inner edge of the rectus. The loop of the ligament is then cut and the two ends sutured to the aponeurosis. He has found this procedure a most effective means of correcting prolapse and retrodisplacement, while it is simple and easy of execution and does not interfere in the least with future pregnancies, as he has several times had occasion to observe. It also holds the adnexa and prevents their displacement, which Pozzi considers as the most important factor in the production of the disturbance accompanying displacement of the uterus.

Hygiea, Stockholm.

Last indexed page 683.

102 (No. 1.) *Nervous Heart Affections. J. G. Edgren.—Om de s. k. nervösa hjärtsjukdomarna.

103 Preparation of Yeast for Medicinal Use. A. Blomqvist.—Om jästpreparat (Saccharomycetes sicc. pulv. 1 : 1 m. fl.) för medicinska ändamål.

104 *En ny metod för operation af entropion senile. G. Ekehorn.

105 Notes from Foreign Lands. S. Lysander.—Räknekort vid epidemiska sjukdomar (Hamburg).—Kyrkogården i Hamburg.—Gatubeläggning med trä i Paris.—Le musée social i Paris.

106 Three Cases of Cancer of Liver. E. Rodhe.—3 fall af primar lefverkancer.

107 (No. 2.) Model Tuberculosis Pavillion at Stockholm General Hospital. F. W. Warfvinge.—Nagra ord am tuberkulos och om tuberkulospaviljonge vid Sabbatsberg sjukhus.

108 *Addison's Disease in Sweden: Carcinoma in Lung, Etc. A. Josefson.—Sällsyntare sjukdomsfall.

109 Combined Night Lamp and Nursing Bottle Warmer. J. Rodling. Kombinerad nattlampa och snabbvärmare för diflaskor.

110 (No. 3.) *Fall af hernia obturatoria. Nils Hellstrom.

111 *"Ether Drunk." J. Landström.—Om eterrus.

112 Kolpohysterostomi vid inkarcerad gravid uterus. G. Wennerström.

113 *How Can the Dangers to Society of the Pregnancy of a Syphilitic Woman Be Averted? E. Welander.—Till fragen: huru kunna hämma den sociala fara som et syfilitiskt hafvandeskap kan medföra?

114 Warning Circular for Prophylaxis of Venereal Diseases. Ibid.—Nagra ord om sattet att upplysa allmanheteb angaende de veneriska sjukdomarnas stora sociala betydelse.

115 History of Modern Treatment of Wounds. G. Naumann.—Den moderna sarbehandlingens, etc.

102. **Nervous Heart Affections.**—Edgren reviews his extensive experience with essential or paroxysmal tachycardia, true angina pectoris and other heart diseases, seeking to formulate a base for differentiation of the merely nervous angina pectoris. The latter he finds occurs usually in younger subjects, although he has exceptionally observed it in persons over 60. The attacks do not follow physical exercise, but are rather relieved by it. They seldom occur at night; are more protracted than true angina pectoris. The subjects complain of their sufferings, throw their arms around, move about restlessly, and appeal to the sympathy of people around. The pains are ascribed to the heart region, but spread around it for quite a distance. In true angina, on the other hand, the pains are more circumscribed and radiate in determined directions, to the left axilla, arm, hand, neck and head. The subject stands immovable and grasps some support, without uttering a word. The oppression in the chest, sensation of constriction around the neck and fear of impending death overshadow the actual pain experienced. The attacks also are brief. In the nervous form periods of tachycardia are liable to alternate with normal heart action. The latter is influenced by slight causes, the physician's examination, change of position, etc., may send the pulse up 20 to 30 beats a minute. A blowing sound is often noted in nervous heart affections, usually systolic, but occasionally diastolic, the maximum over the pulmonic valves. It is brief and

variable. A nervous heart affection may accompany an organic lesion in some other organ. The discovery of other nervous symptoms, neurasthenia or hysteria, will aid in the diagnosis. The objective signs of a nervous heart affection include tachycardia or less frequently bradycardia, "palpitations," a slight degree of arrhythmia, accentuation or reduplication of the heart sounds, and the above-mentioned blowing sound. All these symptoms are variable, some noted at one time and some at another. If constant, they indicate an organic lesion. If the heart is found to be hypertrophied, the case can not be one of purely nervous origin and requires different treatment, as also valvular affections, etc., bearing in mind that it is possible for a mitral stenosis to occur without the usual signs for a time. It is sometimes a difficult matter to exclude sclerotic alterations, especially in case of an old syphilitic, and also slight degrees of cardiac insufficiency. Dyspnea is an important symptom. In nervous heart affections the inciting cause is not physical exercise as in the physiologic and organic pathologic conditions, but is the result of some emotion or nervous disturbance. Treatment should commence with the most careful, repeated physical examination, even when the physician is convinced of the nervous nature of the trouble. The patient should at once be told that the findings are negative and this alone will aid the cure. Therapeutic measures must harmonize with the statement, to ensure the confidence of the patient which prescribing of digitalis, for instance, would have a tendency to undermine. The principal reliance is on dietetic and hygienic measures; a sedentary mode of life must be changed and the fanatic sportsman restrained. Some of the patients suffer from inanition, not from poverty, but from improperly prepared food, irregular meals, etc. Others, on the contrary, indulge too freely in the pleasures of the table. It is important, however, not to attempt to reduce obesity too rapidly or the nervous symptoms may become aggravated to an alarming degree. Treatment of concomitant gastrointestinal or genital affections, chlorosis and anemia is naturally of great importance. Purely medicinal treatment is of subordinate importance. The bromids and other nervines have merely a transient effect. As important adjuvants, mineral waters and baths, gymnastics, massage and, possibly, electricity will be found useful, as also other measures beneficial for neurasthenia.

104. **Operation for Senile Entropion.**—The lids are left untouched and a crescent-shaped piece cut out of the conjunctiva, about as long as the tarsus, and in the middle about as wide or slightly wider than the latter. The wound is then sutured. Ekehorn has successfully performed this operation, the details of which are illustrated, on both eyes of one patient. The entropion dated from about a year previously. The eye appeared normal afterward and showed no traces of having been operated on unless examined closely. Judging from the results in this case recurrence seems to be impossible.

108. **Addison's Disease in Sweden; Carcinoma in Lung, Etc.**—The clinical records and pathologic anatomic findings are described in detail of a successfully diagnosed case of stenosis of the isthmus of the aorta and of 4 cases of primary carcinoma of lung. Josefson also cites 7 cases of Addison's disease that have been published in Sweden and 3 personally observed. One of the latter was distinguished by hyperglobulia. Recent articles on Addison's disease have ignored the contributions of Swedish writers, which now include a total of 10 cases. The age ranged from 24 to 50 and 7 of the patients were men. The autopsy findings are given in his cases.

110. **Incarcerated Obturator Hernia.**—Hellstrom has collected 37 cases of this rare form of hernia and gives the particulars in tabulated form. Death occurred in all but 12. All are from the European literature except Elder's case in the Annals of Surgery, 1900. He describes a case personally observed. The patient was a woman of 67 who had noticed a small tumor for twelve years at the obturator foramen. The hernia was readily reduced at first, but finally caused pains extending down toward the knee and symptoms of incarceration. Complete recovery followed a radical operation by Borelius. In the collected statistics, as in this case, there was a coincidence of some other hernia with the obturator in 4 cases, and in one there was bilateral obturator with bilateral femoral hernia, and in another five hernias at once. The neuralgic pain extending down to the knee was denied in 6 and not mentioned in 8, but was noted in the others. The age ranged from 38 to 84. Sprengel's patient was 80 and recovered after a laparotomy.

111. **"Ether Drunk."**—Sudeck called attention in 1901 to the possibility of operating during the first phase of unconsciousness caused by the fumes of ether. Landström reports that more than 100 operations have been performed at the Stockholm hospital with this anesthesia alone, using merely 10 to 20 c.c. of ether and operating as soon as this has been inhaled in a few deep breaths. In some cases 5 c.c. were sufficient. The operations were mostly short, painful ones, but in one instance a Gritti amputation of the thigh was done, and the patient was kept under the influence of the ether with merely 70 c.c. for thirty-two minutes, giving a few drops the fifth, ninth, eighteenth and twenty-fourth minutes. There is no danger of syncope or unfavorable action on the respiratory organs. Lennander, Ehrlich and von Bruns also report very favorable results with the "Ether Rausch," alone or in combination with local anesthesia, and by repeating it several times in succession have been able to do long operations with it.

113. **To Minimize Dangers from Pregnancy in a Syphilitic.**—Among the measures which Welander advises are the thorough mercurial treatment of the women, preferably by his "pillow case" method. The children should be brought up if possible under medical supervision in a special asylum for three or four years at least. He has organized such an asylum which has accommodations for 10 or 12 children. Eight of the mothers were under treatment at the general hospital before the termination of the pregnancy. None of their children exhibited symptoms of syphilis at birth or since. The other children were marked with hereditary syphilis when admitted to the asylum. All of the children are treated intermittently with the mercurial "pillow-cases." The little asylum has prevented the contagion of others, while it offers the children the very best chances for minimizing their evil inheritance.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

PRACTICAL POINTS IN NURSING. For Nurses in Private Practice. With an Appendix Containing Rules for Feeding the Sick; Recipes for Invalid Food and Beverages; Weights and Measures; Dose List; and a Full Glossary of Medical Terms and Nursing Treatment. By Emily A. M. Stoney, Late Superintendent of the Training School for Nurses, Carney Hospital, South Boston, Mass. Third Edition, Thoroughly Revised. Fully Illustrated, Including 8 Colored and Half-Tone Plates. Cloth. Pp. 458. Price, $1.75 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

THE PRACTITIONER'S GUIDE. By J. Walter Carr, M.D. (Lond.), F.R.C.P., Physician Royal Free Hospital; T. Pickering Pick, F.R.C.S., Consulting Surgeon, St. George's Hospital and Victorian Hospital for Children; Alban H. G. Doran, F.R.C.S., Surgeon to the Samaritan Free Hospital; Andrew Duncan, M.D., B.S. (Lond.), F.R.C.S., M.R.C.P., Physician Branch Hospital Seamen's Hospital Society. Cloth. Pp. 1107. Price, $6.00. New York, London and Bombay: Longmans, Green & Co. 1902.

HANDBOOK OF CLIMATOLOGY. By Dr. Julius Hann, Professor of Cosmical Physics in the University of Vienna. Part I—General Climatology. Translated, with the Author's Permission, from the Second Revised and Enlarged German Edition, with Additional References and Notes, by Robert DeCourcy Ward, Assistant Professor of Climatology in Harvard University. Cloth. Pp. 437. Price, $3.00 net. New York: The Macmillan Co. 1903.

THE CARE OF THE BABY. A Manual for Mothers and Nurses, Containing Practical Directions for the Management of Infancy and Childhood in Health and in Disease. By J. P. Crozer Griffith, M.D., Clinical Professor of Diseases of Children in the Hospital of the University of Pennsylvania. Third Edition, Thoroughly Revised. Cloth. Pp. 436. Price, $1.50 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

A TEXT-BOOK OF LEGAL MEDICINE AND TOXICOLOGY. Edited by Frederick Peterson, M.D., Chief of Clinic, Nervous Department of the College of Physicians and Surgeons, New York; and Walter S. Haines, M.D., Professor of Chemistry, Pharmacy, and Toxicology, Rush Medical College, in Affiliation with the University of Chicago. Cloth. Pp. 750. Price, $5.00. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

MEDICAL JURISPRUDENCE, INSANITY, AND TOXICOLOGY. By Henry C. Chapman, M.D., Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, Philadelphia. Third Edition, Thoroughly Revised, Greatly Enlarged, and Entirely Reset.

Fully Illustrated, Including Four Colored Plates. Cloth. Pp. 329. Price, $1.75 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

SUCCESS IN DENTAL PRACTICE. A Few Suggestions Relative to the Most Approved Methods of Conducting a Practice. By C. N. Johnson, M.A., L.D.S., D.D.S., Professor of Operative Dentistry in the Chicago College of Dental Surgery. Cloth. Pp. 159. Price, $1.25. Philadelphia and London: J. B. Lippincott Co. 1903.

TUBERCULOSIS: Recast from Lectures Delivered at Rush Medical College, in Affiliation with the University of Chicago. By Norman Bridge, A.M., M.D., Emeritus Professor of Medicine in Rush Medical College. Cloth. Pp. 302. Price, $1.50 net. Philadelphia, New York, London: W. B. Saunders & Co. 1903.

TRANSACTIONS OF THE FOURTEENTH SEMI-ANNUAL MEETING OF THE MEDICAL SOCIETY OF THE MISSOURI VALLEY, at Lincoln, Neb., March 20, 1902. Paper. Pp. 47. St. Joseph, Mo.: The Medical Herald. 1902.

TRANSACTIONS OF THE LUZERNE COUNTY MEDICAL SOCIETY, for the Year Ending December 31, 1902. Volume X. Paper. Pp 162. Wilkesbarre, Pa.: The E. B. Yordy Co. 1903.

TWENTY-FIRST ANNUAL REPORT OF THE BOARD OF HEALTH OF THE CITY OF LOWELL, for the Year 1902. Paper. Pp. 67. Lowell, Mass.: Courier-Citizen Co. 1903.

The Public Service.

Army Changes.

Movements of officers of the Medical Department, U. S. A., under orders from the Adjutant-General's Office, Washington, D. C., from April 10 to 17, 1903:

Devereux, John R., first lieut. and asst.-surgeon, is directed to proceed to Fort Snelling, Minn., for duty, instead of Fort Columbus, as heretofore ordered.

Gilchrist, Harry L., first lieut. and asst.-surgeon, will proceed to Philadelphia, Pa., and New York City on business pertaining to the medical department of the Army.

Kennedy, James M., captain and asst.-surgeon, having completed the duty for which he was ordered to Washington, D. C., will, on the expiration of his present leave, proceed to Allentown, Pa., New York, Boston, West Point, N. Y., Buffalo, N. Y., Cleveland, Ohio, Chicago and St. Louis, on business pertaining to the medical department of the Army, and on the completion of this duty will rejoin his proper station at the Presidio.

Miller, Edward W., contract surgeon, will report to the commanding officer, 14th battalion, field artillery, in camp at the Presidio, for duty therewith en route to Fort Sheridan, and on the completion of this duty, will proceed to his home, Chicago, for annulment of contract.

The following named medical officers are detailed to represent the medical department of the Army at the annual meeting of the American Medical Association to be held in New Orleans, from May 5 to 8, 1903: Major Louis A. LaGarde, surgeon; Major Charles F. Mason, surgeon; First Lieut. James Carroll, asst.-surgeon.

The following named officers are detailed to represent the medical department of the Army at the Interstate National Guard Association, to be held at Columbus, Ohio, May 4 to 6, 1903: Captain Merritte W. Ireland, asst.-surgeon, Captain Frederick P. Reynolds, asst.-surgeon.

Navy Changes.

Changes in the Medical Corps of the Navy for the week ending April 25:

Medical Director T. H. Streets, detached from the Naval Laboratory, New York, and to duty at the Naval Hospital, Philadelphia.

Medical Inspector G. R. H. Harmon, ordered to the Naval Laboratory, New York.

Asst.-Surgeon J. Stepp, ordered to the Naval Hospital, Portsmouth, N. H.

Medical Director J. B. Parker, detached from the Naval Hospital, Philadelphia, and ordered home to wait orders.

P. A. Surgeon H. H. Haas, detached from the Naval Hospital, Portsmouth, N. H., and granted sick leave for four months.

Surgeon J. D. Gatewood, detached from the *Lancaster* and ordered to the *Yankee*.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended April 23, 1903:

P. A. Surgeon A. C. Smith, leave of absence for 15 days from April 8, 1903, granted by bureau letter of March 25, 1903, amended so that it shall be for 10 days only.

P. A. Surgeon J. A. Sydenstricker, relieved from duty at Baltimore, and directed to proceed to Gulf Quarantine and assume command of the service at that port.

P. A. Surgeon L. L. Lumsden, to proceed to New Orleans, and report to medical officer in command for duty and assignment to quarters.

P. A. Surgeon J. F. Anderson, to proceed to Great Falls, Mont., for special temporary duty.

Asst.-Surgeon J. W. Kerr, to proceed to Gallipolis, Ohio, and Point Pleasant, W. Va., for special temporary duty.

Asst.-Surgeon T. F. Richardson, to proceed to Bay St. Louis, Pascagoula, Pass Christian, Long Beach, Handsboro, Gulfport, Biloxi, Ocean Springs and Scranton, Miss., for special temporary duty.

Asst.-Surgeon Jos. Goldberger, relieved from duty at Ponce, P. R., and directed to proceed to Vera Cruz, Mex., for duty in office of the U. S. Consul.

Asst.-Surgeon Edward Francis, to report to director of hygienic laboratory for special instructions.

A. A. Surgeon, D. M. Echemendia, granted leave of absence for seven days from April 15, under provisions of Paragraph 210 of the regulations.

A. A. Surgeon John Frick, relieved from duty at Havana, Cuba, and directed to proceed to Tampico, Mex., for duty in office of U. S. Consul.

A. A. Surgeon B. W. Goldsborough, granted leave of absence for 3 days from April 28.

A. A. Surgeon W. C. Mason, granted leave of absence for 3 days from May 5.

A. A. Surgeon M. V. Safford, granted leave of absence for 2 days from April 10, under provisions of Paragraph 210 of the regulations.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended April 25, 1903:

SMALLPOX—UNITED STATES.

Alabama: Mobile, April 11-18, 3 cases.
California: San Francisco, April 5-12, 15 cases.
Colorado: Denver, April 4-11, 28 cases.
Florida: Jacksonville, April 11-18, 1 case.
Illinois: April 11-18, Belleville, 3 cases; Chicago, 17 cases, 2 deaths; Galesburg, 4 cases.
Indiana: April 11-18, Evansville, 3 cases; Indianapolis, 4 cases, 2 deaths.
Kentucky: Covington, Jan. 10-April 18, 98 cases.
Louisiana: New Orleans, April 11-18, 8 cases (imported).
Maryland: Baltimore, April 11-18, 2 cases.
Massachusetts: April 11-18, Fall River, 1 case; Lowell, 2 cases.
Michigan: April 11-18, Detroit, 11 cases; Flint, 1 case; Grand Rapids, 7 cases; Port Huron, 1 case.
Minnesota: Winona, April 11-18, 1 case.
Mississippi: Gulf Port, April 16, 16 cases.
Missouri: St. Louis, April 12-19, 9 cases.
Nebraska: Omaha, April 11-18, 2 cases.
New Hampshire: April 11-18, Manchester, 8 cases; Nashua, 5 cases.
New York: Buffalo, April 11-18, 2 cases, 1 death; New York, April 11-18, 2 cases, 1 death; Rochester, April 14-21, 4 cases.
Ohio: Cincinnati, April 10-17, 15 cases, 1 death; Cleveland, April 11-18, 1 case, 1 death; Dayton, April 11-18, 2 cases; Toledo, April 4-18, 19 cases, 1 death.
Pennsylvania: April 11-18, Altoona, 1 case, 1 death; Johnstown, 1 case; Philadelphia, 10 cases, 1 death; Scranton, 8 cases.
South Carolina: Charleston, April 11-18, 5 cases; Greenville, April 4-11, 1 case.
Tennessee: Memphis, April 11-18, 1 case.
Utah: Salt Lake City, April 11-18, 3 cases.
Washington: Tacoma, April 6-13, 2 cases.
Wisconsin: Milwaukee, April 11-18, 1 case.

SMALLPOX—INSULAR.

Philippines: Manila, March 4-11, 1 case.

SMALLPOX—FOREIGN.

Austria: Prague, March 28-April 4, 8 cases.
Belgium: Brussels, March 28-April 4, 9 deaths.
Brazil: Bahia, March 21-28, 1 death; Rio de Janeiro, March 20-29, 13 deaths.
China: Hong Kong, Feb. 28-March 7, 1 case, 1 death; Shanghai, March 9-16, 12 deaths.
Colombia: Barranquilla, March 22-29, 1 death; Bocas del Toro, to April 6, 21 cases, 3 deaths.
France: Paris, March 28-April 4, 1 death.
Germany: Hamburg, March 28-April 4, 1 case.
Great Britain: Birmingham, March 22-April 4, 25 cases; Dublin, March 29-April 4, 12 cases, 1 death; Leeds, March 29-April 4, 10 cases; Leith, March 29-April 4, 2 cases; Liverpool, to April 4, 62 cases, 6 deaths; London, March 29-April 4, 13 cases; Manchester, March 29-April 4, 24 cases, 1 death; Sheffield, March 21-April 4, 4 cases.
India: Bombay, March 17-24, 85 deaths; Calcutta, March 14-21, 3 deaths; Karachi, March 14-22, 1 case, 1 death.
Italy: Milan, Feb. 1-28, 4 cases; Palermo, March 28-April 4, 1 case.
Japan: Yokohama, March 14-21, 1 case.
Mexico: City of Mexico, March 29-April 5, 8 cases, 6 deaths.
Russia: March 21-28, Moscow, 3 cases, 2 deaths; Warsaw, 7 deaths.
Straits Settlements: Singapore, Feb. 21-March 7, 2 deaths.
Turkey: Alexandretta, March 21-28, 6 cases.

YELLOW FEVER.

Brazil: Rio de Janeiro, March 13-20, 81 deaths.
Colombia: Panama, April 6-13, 3 cases, 1 death.
Costa Rica: Limon, April 10, 2 cases.
Ecuador: Guayaquil, March 21-April 4, 6 deaths.

PLAGUE—INSULAR.

Philippines: Manila, March 4-11, 10 cases, 8 deaths.

PLAGUE—FOREIGN.

China: Hong Kong, March 7-14, 19 cases, 17 deaths.
India: Bombay, March 17-24, 1,270 deaths; Calcutta, March 14-21, 751 deaths; Karachi, March 15-22, 120 cases, 97 deaths.

CHOLERA—INSULAR.

Philippines: Cebu, Feb. 21-28, 2 cases, 1 death; Manila, Feb. 21-28, 2 cases, 1 death; Opan, Island of Cebu, Feb. 28, 4 cases, 4 deaths; Talisay, Island of Cebu, Feb. 24, 17 cases, 10 deaths; Provinces, Feb. 1-28, 135 cases, 84 deaths; not previously reported, 532 cases, 319 deaths. Total, 667 cases, 403 deaths.

CHOLERA—FOREIGN.

India: Bombay, March 17-24, 1 death; Calcutta, March 14-21, 215 deaths.
Straits Settlements: Singapore, Feb. 21-March 7, 10 deaths.
Turkey: Damascus, to March 22, 28 cases, 28 deaths.